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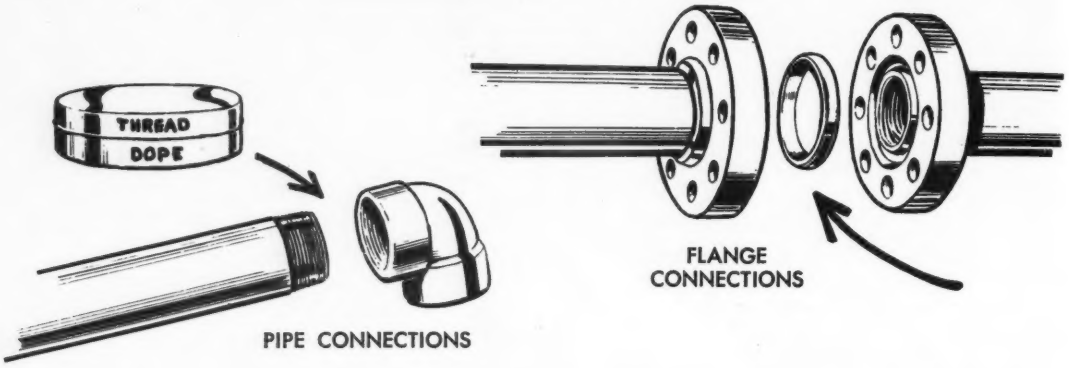
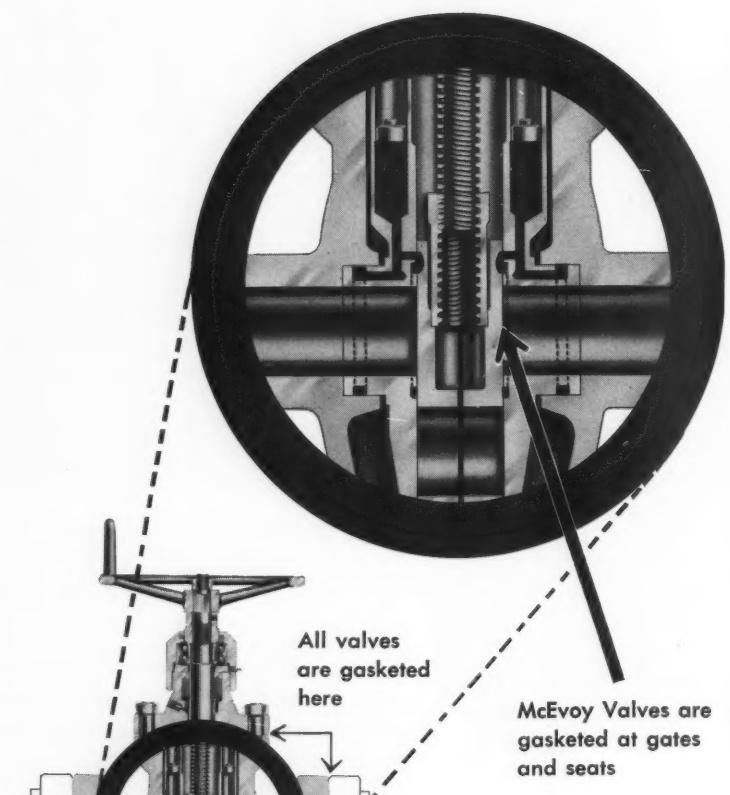
WHY GASKET IMMOBILE CONNECTIONS . .



BUT NEGLECT VALVE GATES AND SEATS?



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CALIFORNIA
OIL WORLD

PUBLISHED TWICE A MONTH

2404 WEST 7th ST.
LOS ANGELES 57, CALIFORNIA

PETROLEUM PUBLISHERS, INC.
W. C. MONROE—President and Editor
KINZIE MILLER—Vice President
LARRY O. MILLER, Advertising Manager
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1900 Euclid Avenue, Cleveland 15, Ohio
The McKeown Company—New York Representatives
342 Madison Avenue, New York 17, N. Y.

• FIRST ISSUE
FEBRUARY, 1958
VOL. 51 • NO. 3
WHOLE NO. 1985

California Oil World is published twice a month at 2404 West 7th St., Los Angeles 57, California. Entered as Second-Class Matter, April 29th, 1944, at the post office at Los Angeles, California, under the Act of March 3, 1879. Subscription price $1 per year in U. S. and possessions, $2 in foreign countries including Canada.

Telephone DUnkirk 2-6218
February 15th, 1958

Los Angeles Area Developments on High Economic, Modern Plane

Those who may look indifferently upon the economics of urban oil development may be taken back somewhat to know that the average amount of oil produced from Los Angeles area fields up to January 1, 1957, was 128,-624 barrels an acre of crude oil of 26 average gravity.

Oil of that gravity currently brings about $3.12 a barrel for a total of some $400,000 an acre. And not forgetting the landowner, his royalty of ⅛th would, therefore come to more than $50,000 an acre. Additional oil still remains to be brought to the surface in most all of these Los Angeles producing areas.

No Subsidence

Several years ago, opponents of city drilling expressed fears that such development might be the root of subsidence.

Eminent scientists pointed out that such thinking is basically incorrect. As an example, multimillion-dollar Century City is to be constructed on Fox Studio property where 15 wells are currently putting out 3000 barrels of oil daily.

In some quarters townlot lessors have expressed the opinion that leasing of their land might work against borrowing on the property.

However, leading bankers have pointed out that the existence of a subsurface oil and gas lease does not affect the value of property or oppose the ability of the lessor to conventionally borrow money on real estate holdings. Moreover, there should be no trouble in quieting title to surface rights.

Modern Drilling

Modern drilling within the city limits of Los Angeles has set a pattern of excellence and the area of drilling usually is more attractive than it was before oil operators started their respective exploration and development work.

Richfield Oil Corporation's development campaign at Boyle Heights has done much in beautifying the surrounding properties and removing disagreeable and unsightly aspects of the neighborhood.

Consensus both outside and within the petroleum industry is that oil drilling activities as proceeding presently are in no way detrimental, even remotely, to adjacent residential property values.

Hermosa Beach

Voters will be asked next February 25 to approve an oil drilling ordinance at Hermosa Beach at a special election.

Shell Oil Company and Continental Oil Company last December 3 signed a contract for the right to drill for offshore oil and gas with the Hermosa Beach City Council.

The contract called for a bonus payment of $11,100,000 for the right to drill in the city's submerged lands and use a tract of city ground for operational headquarters and a separation center.

Under terms of the pact, all drilling must be conducted from four drilling platforms, with all but one of the platforms to be situated at least one mile from shore.

One platform may lie at the three-quarter-mile mark at the southern boundary of the offshore tract.

Shell and Continental presented the council with a $500,000 check at contract signing time. The balance of the bonus will be paid if voters approve the ordinance at the forthcoming special election.

Commenting on the Hermosa Beach drilling contract, S. F. Bowlby, Shell vice president, in part said:

"Hermosa Beach Councilmen are to be commended for their foresight in providing this opportunity for the future growth and prosperity of your city.

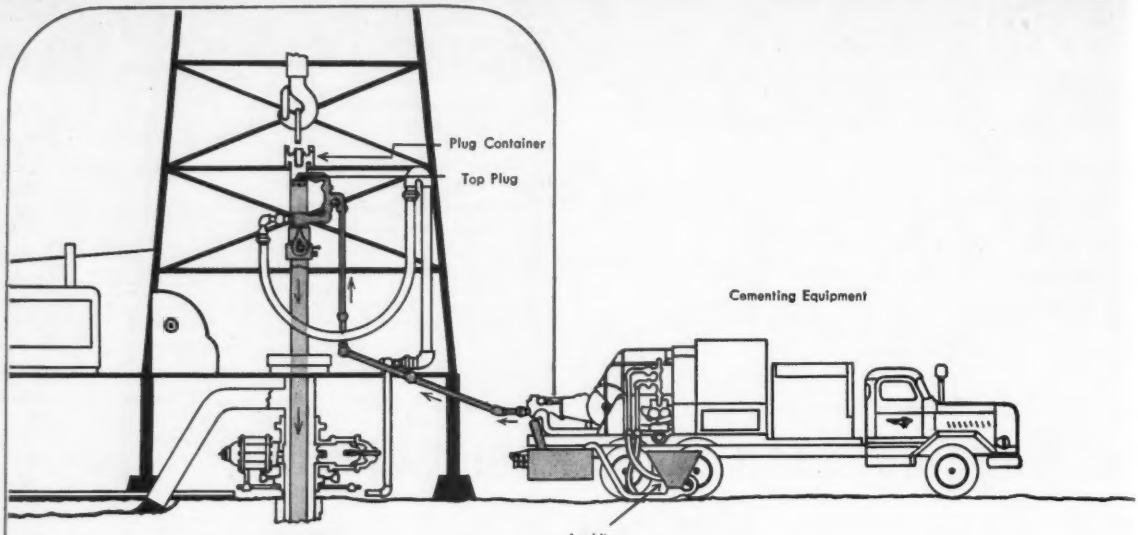
. . . "Money gained from the development of your oil resources could go far in providing many civic improvements.

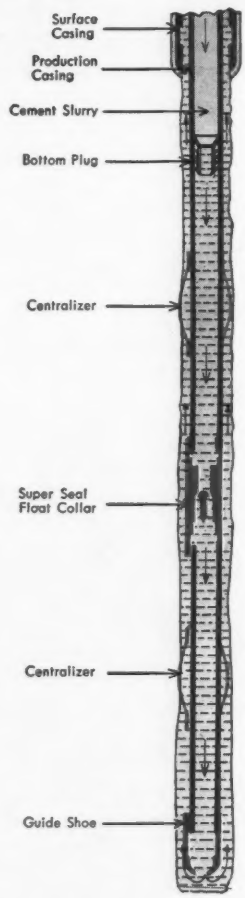
"As we emphasized when our proposal was accepted, we consider ourselves in a position of public trust and we shall do all in our power to preserve this trust.

"We hope the citizens of Hermosa Beach will see fit to cast a positive vote in the forthcoming election and permit drilling offshore."

New Sucker Rod Method

C. R. Schleibaum, Shell Oil Company coastal division production foreman, has won considerable acclaim by recently devising a new and more efficient method of handling sucker rods. The system gains three purposes. It does away with a string of sucker rods falling due to release of the friction hooks which formerly held each string, it permits a shorter break-in period for a new derrickman, and it allows more rods to be pulled without laying any of them on the ground.



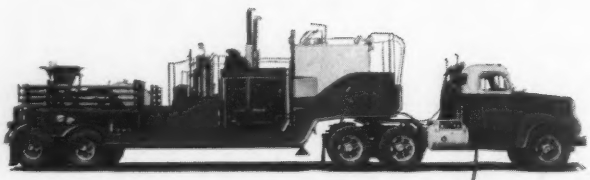


WHAT IS PRIMARY CEMENTING?

Primary cementing is the initial operation performed immediately after casing is run into the hole. It serves the basic functions of bonding pipe to formations, aids in protecting oil and gas zones and preventing migration of fluids within the well.

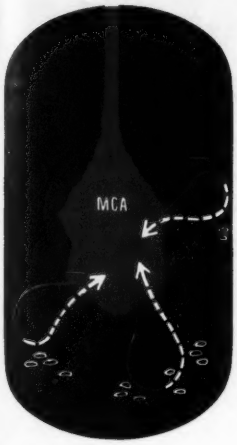
In primary cementing, the slurry is pumped out of the bottom of the lower shoe into the annular space outside the casing, as illustrated in the operational diagram at the left. A good primary cementing job is one of the most important factors affecting the producing period and the settled production rate of any oil well.

Get longer producing life... greater protection against subsurface problems... more net BOPD from your well. Specify Halliburton for your primary cementing!

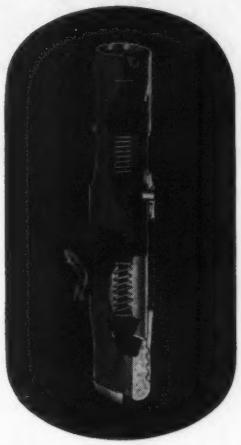


HALLIBURTON
OIL WELL CEMENTING COMPANY
DUNCAN, OKLAHOMA

FOR MORE PRODUCTION, USE THESE HALLIBURTON PRODUCTS TO ASSIST YOUR WELL:



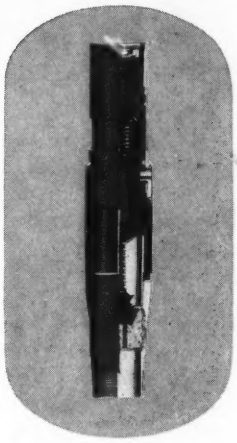
MCA, Halliburton's effective Mud Clean-out Agent, is used ahead of the cement slurry in primary cementing. Laboratory tests indicate that MCA is the most efficient mud dispersant available. It helps to clean out mud and soft filter cake in the annular space, reducing the possibility of channeling and providing a better cement bond to the formation.



FORMATION PACKER SHOE, installed on the first joint of a string of casing, offers many advantages. This shoe is used in all areas where conditions require casing to be set on top of the producing formation, because:

1. Packer Shoe packs off open hole below casing, protecting low-pressure formations from cement contamination during cementing.
2. Packer Shoe floats in and guides casing to bottom.
3. Packer Shoe has a Super-Seal Back-Pressure Valve to keep cement slurry from backing up inside the casing above the Formation Packer Shoe.
4. Packer Shoe provides circulation of fluids through end of Shoe until shoe packer rubber is expanded and set.

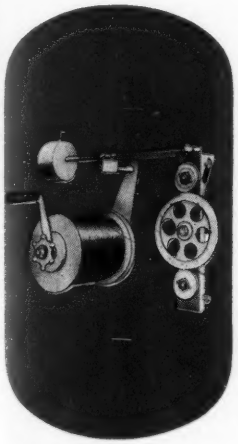
FORMATION PACKER COLLAR is installed on casing above the shoe joint to help protect a lower formation from contamination while cementing. Several joints of casing or liner may be installed on lower end of packer collar; the packer is set and cement pumped down casing and out into annulus above expanded packer.



STANDARD MEASURING DEVICE for:

- Determining accurate measurements of well depths.
- Running instruments to obtain bottom hole temperatures, pressures, and fluid samples.
- Running crooked hole survey instruments.
- Surveying offshore locations that require precise linear measurements.

In addition to the Standard Measuring Device, Halliburton offers Heavy Duty, Extra Heavy Duty, and Super-Duty Devices. Whatever your needs, Halliburton has the device or combination of equipment to meet them.



HOWCO HYFLO, an emulsion breaker, effectively removes water blocks and emulsions from productive formations, permitting oil to flow to the well bore with less resistance. Howco Hyflo is a surfactant which acts by greatly reducing the interfacial tension between the water and oil and minimizes the existence of stable emulsions.

CEMENTING SERVICES

284 SERVICE CENTERS—JUST MINUTES AWAY FROM YOUR WELL

Petroleum LORE and LINGO

By Richard Sneddon

Lands and Leasing

Closely allied with the exploration people are two alliterative groups of specialists, termed respectively landmen and lawyers. The former are in effect high class barterers or traders whose function it is to lease, rent, or permanently obtain the property rights that are needed by the geoscientists before they can conduct their surveys, and that may be later needed by the drillers for testing the deductive powers of the aforesaid geoscientists. The landman is a peculiary inquisitive as well as acquisitive chap, with an external appearance of child like innocence and an inner wilyness that would be no disgrace to Reynard the fox. His antennae are tuned to every oilfield and prospective oil field wave length, and just in case of static interference, he has a few scouts to do private on-the-spot eavesdropping for him.

The Accoutrements

He is a man of mysterious comings and goings. At unpredictable intervals he flits furtively out of town in the dark of night, carrying a briefcase, containing mostly checks, lease forms, tranquilizers and sleeping pills. On the lease forms, everything is filled in but the signatures; on the checks, the signature is the only thing that is filled in; but before he returns to headquarters, there won't be a vacant line on either one. Not if he can outsmart the other landmen who will be trying to outsmart him. And when the deal is closed the sleeping pills and the tranquilizers will steady his nerves for the next foray. His movements have to be secretive, because the mere knowledge that he has been seen in a given area is enough to send land values in that area skyrocketting. His movements have to be secretive also because even in the petroleum business there are bird watchers, with telescopes, field glasses, and penetrating eyes, spying from covers and copses, like their English counterparts. The bird on which the attention of these gentry is focussed is not the pigeon-chested whiffle tree, however, but the common or garden landman.

Searching for Clues

His every twitch is observed and recorded, and he is trailed as relentlessly as the culprit in a TV murder mystery, in the hope that he may lead the trailer to some key figure in an important "play." A play, of course, is any new exploratory search for oil. It is pretty generally concluded by the common run of fortune hunters, and pretty correctly, too, that when any petroleum organization starts leasing land in a new area or even in an already proven one, there is good reason for the excitement. Whereupon, in the words of the immortal Durante, "everybody wants to get into the act." The landman is more than adept in the art of constructing conversational and scriptural decoys to lure the perennial un-attached lease hawkers off on some anserine scramble (that's a wild good chase, son), until he himself has all the desirable John Hancocks roosting comfortingly on their respective dotted lines. His experienced competitors, however, are not quite so easily diverted and with them the contest usually devolves into a straight race against time to get first with the most to the right property owners.

Some Involvements

That is not as easy as it sounds, because ownership is often a confused issue that is anything but simple to define. Some years ago I heard George Supple, vice president of General Petroleum Corporation, telling the members of the Western Pipe Liners Club some of the difficulties involved in getting right-of-way permits for the Aramco Trans-Arabian pipeline. Among other things he remarked that the Arabs have some form of communal property ownership, and it took over 1700 signatures to clear the way for construction of the line. In one instance at least it required about 25 to obviate the necessity of curving the line around an olive tree that stood in its path. It appears that in whatever an Arab owns by way of real estate and appurtenances thereon or additions thereto, all his living relatives, no matter how remote, enjoy an incontrovertible personal interest.

Even at Home it is Tough

Complicated as that situation may seem, it is no more so than many of the commonly encountered ones in our own country. When, for example, it is necessary to sign up a few hundred or a few thousand property owners in a unitization plan, the diverse types of ownership add greatly to the complexity of the problem. Owners may include bachelors and spinsters, and husbands and wives, as individuals; husband and wives with community interests, or in joint tenancy; one or the other as survivors; their heirs or estates; minors and guardians; churches, schools, corporations; partnerships; all sorts of institutions and organizations; municipalities; cities, states, and even the United States itself. The whole process is further confounded by the differences in federal, state, and municipal laws governing possession and succession, and sometimes by influencing factors that are just tossed into the situation more or less accidentally.

The Encyclopedia Lease

An interesting sample of the manner in which titles become dispersed in the course of time,

is to be found in the history of the famed "Encyclopedia" lease at Huntington Beach, California. In 1914 this property, consisting of 30 acres was divided into small lots and placed on the open market by a local real estate agent or firm. The lots didn't command much attention at first, but eventually were largely disposed of by tossing in with each one purchased, a set of the Encyclopedia Americana. This was contrived by the aid of a book salesman who happened to come along at the opportune moment. I have never quite understood whether the lot was an inducement to buy the encyclopedia or the encyclopedia was an inducement to buy the lot. In any case the deal turned out to be a profitable one for the buyers. Eight years later a sizable oil well was brought in on an adjacent tract and from then on encyclopedia lots became more valuable by the minute. It was apparently originally an installment deal and a number of the buyers failed to keep up their payments so their shares reverted back to the encyclopedia company and thence to a buyer-upper of bad debt.

The In-Gathering

Meantime people in the know rustled around trying to corner the lots which for so long had been worthless. One small syndicate did manage to acquire about 30 of them and was subsequently well rewarded for its perspicacity, or words to that effect. The buyer-upper referred to in the preceding paragraph also did right well for himself although he sold most of the lots he had obtained to the local syndicate aforesaid. A few of the individual purchasers shared in the rewards of the eventual oil development but a considerable number have never been tracked down. It would be kindness perhaps to assume that these are the ones who were more interested in education than oil, but for the moment we will use them as confirmation of the fact that owners in quantity are not easy to round up for a signing bee.

Human Frailties

Landmen being fundamentally human are subject to all the physical ills and distresses that afflict mankind, and occasionally are smitten by the more serious ones at the most awkward times. A California representative of the species went back to Texas a few years ago to attempt to lease a substantial bit of high class acreage in which his company was interested. The owner was a wealthy Spanish gentleman, somewhat elderly — a retired surgeon, in fact but an excellent host and a most entertaining conversationalist. In his preliminary contact by phone, the landman was invited to dine at the hacienda of his client, and accepted the bid with profound thanks—and high hope. Upon his arrival he was accorded all the amenities and attentions that we Americans usually reserve for a chance visit at our homes of Queen Elizabeth and the Duke of Edinburgh. Thereafter he was plied with the finest of wines and beverages, and he

HERE'S PROOF...

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Dear Mr. Producer:

Thank you for your inquiry concerning the Welex Side Wall Coring service and your challenge to back up our statement that "you get more and bigger cores with Welex Side Wall coring which means more available data to you."

Dissecting our proof, we have four elements that we believe you will agree combine to make Welex Side Wall Coring the next best thing to being down inside the well yourself. These elements (and you can verify some of them by the accompanying art) are as follows:

1. The exclusive Welex stabilizer centralizes the Welex Side Wall Coring gun in the hole so that all cores are fired at a fixed stand-off from the formation and permits recovery of consistent cores with every barrel. Without a stabilizer there is no possible way to control impact and subsequent core recovery.
2. The Welex Side Wall Coring gun is of rectangular design to recover cores even in the deep holes of less than 6" diameter. By this design deep well data is conveniently available.
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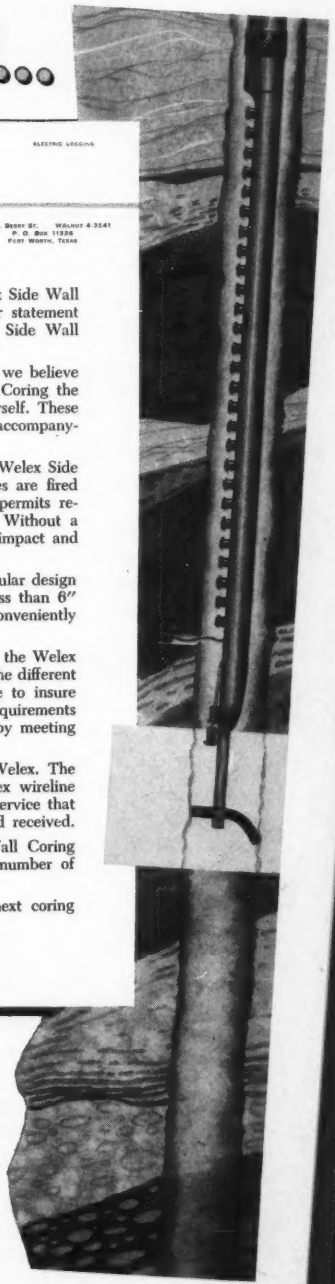
4. Top flight service is yours every time with Welex. The confidence of the entire oil industry in Welex wireline tools has been earned by years of unexcelled service that men in your position have demanded . . . and received.

Now, you can see why we say "Welex Side Wall Coring means more available data to you from a greater number of consistently larger cores."

May we give you even further proof on your next coring job?

Very truly yours,

Your Welex Representative



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District offices in every major oil center. Subsidiaries in Canada, Peru and Venezuela.

soon noted that his host was something more than a gentleman — he was also a scholar. Every time our friend made an attempt to broach the little matter of the lease, he was adroitly turned aside into new and more elevating areas of discussion.

And Physical Ailments

At last it became quite obvious to him that his victim was not the slightest bit interested in disposing of any part of his domain or any of the rights it entailed, no matter how attractive the inducement might be. Dinner was served, and such a fabulous repast it was as the landman had never before experienced. He fell too with a zest that must have been mighty pleasing to the cook, and things were going along swimmingly when suddenly he was taken violently ill. His abdominal pain was altogether too sharp and too persistent to be concealed, and noting his guest's distress, the old gentleman lead him very carefully and very solicitously out of the dining room into the study. Here he made a preliminary examination and expressed his belief that the trouble was acute appendicitis.

Surgical Developments

A good surgeon never dallies with that sort of thing and in short order they were in the operating room of the local hospital where the defective appendix was forthwith transferred by the old doctor from the patient's tummy to an alcohol bottle on the exhibit shelf. The victim recuperated nicely, and when in a few days his host felt sure he could stand the journey, he was placed with great tenderness on a plane for Los Angeles, whence in due course he arrived, much humiliated, not only because he had failed to bring back a signed lease but because he had even failed to bring back his own appendix.

Variety is the Spice

The landman is concerned with many types of agreement and negotiation. The common lease in which the lessor is given a royalty on all the oil and gas produced in return for formally relinquishing the mineral rights to the lessee, is a mighty sweet deal for the former. It may even include a preliminary bonus, or a rental fee, if conditions warrant, but in any case the landowner has nothing to do after signing the lease, but relax and await the arrival of his royalty checks. All the costs of drilling, producing, and subsequent treating, storing, and transporting the oil are borne by the lessee.

The Lessee's Share

The usual royalty concession to a land owner is one-eighth of the oil and gas produced, or its equivalent in cash. He may take the actual oil "in kind" if he wishes, but seldom does. Among oilfield people there has been circulating for years the story of an illiterate and obstinate property owner who would not accept the standard one-eighth share. He stoutly insisted that it was too low, and refused point blank to sign the lease until his royalty had been raised to one-tenth. The word "lease," according to Mr. Webster, comes from the French laisser, "to transmit or grant to another person." There is another small increment of royalty termed the "override" that is sometimes given to a lease broker or anyone else, in fact, who renders a service in connection with the securing of a lease. It is called an override because it is in addition to the lessor's royalty share and consequently cuts into the "working interest," as the lessee's portion of the cake is known. Incidentally, "royalty" is derived from the French roi, "a king" not because a royalty owner may live like one and probably feels like one, but because jurisdiction over mineral rights were once conferred by le roi himself.

Fee Ownership

It has been noted that greatly differing forms of ownership have done much to keep the landman's chore from becoming routine, and it might be added that widely divergent species of agreement and personal interest have done little to mend the situation. The most complete form of proprietorship, the nearest thing, indeed to absolute possession is ownership in fee. The word "fee" comes from the Anglo-Saxon **feoh,** meaning "cattle" or "property" and is a remnant of the good old days when grateful rulers rewarded their faithful subjects by granting them herds of cattle or tracts of land which supposedly, were to pass on to their heirs and their heirs' heirs through all eternity.

Attached Conditions

Some California oil companies hold extensive properties in fee and they are decidely fortunate. The owner of such lands, besides being the undisputed landlord of his domain, controls the mineral rights and every other conceivable right, within the horizontal periphery of his property, and vertically from the nether regions to the uttermost ether. In other words, he is monarch of all he surveys and if he has been properly inoculated with the petroleum virus, it won't be long until he also has some independent surveys to consider. The nice thing about a fee property is that unless it is being drained by some adjacent operator, the holder can take his own sweet time about developing it. One California concern, during a period of overproduction, pumped the oil from other leases down into the fee property wells, thus using the subsurface reservoir as storage until a balance between supply and demand was restored.

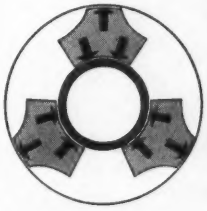
Dry Hole Money

The high cost of exploration drilling is often reduced to some extent by a specialized contribution, known as "dry hole money." This is a form of subsidization, again, of course, arranged by the landman, in which other operators interested in an exploratory well, that is, having leases in the same area, contract to pay part of the drilling expense, only if the well proves to be a non-producer. In return, the contributors have free access to all subsurface information developed during the progress of drilling. If the well turns out to be a commercial producer, the assumption of the dry hole agreement is that the operator will do all right without financial help. This speculative proposition is the sort of thing that oil men love. It is almost like placing a bet with an assured pay off. If the well is dry the lad who makes the wager gets important information for his money. If it is a successs, he gets the information gratis. And information of this kind

DEPENDABLE - DURABLE - PORTABLE

Guiberson's Type H Tubing Spider
for medium and shallow wells

Optional plain gate



Slips make 3-point contact with bowl and tubing — give a smooth, tight grip without crushing the tubing or sticking in the bowl.

Here's a tubing spider so easy to operate you can release it with a single hand or foot, leaving hands free for other work — designed so one man can carry it — yet so rugged and husky it does a job on medium or shallow wells.

Perfectly balanced slips, with segment-insert teeth, make running tubing almost a pleasure with the Type H. Teeth prevent rotation of tubing either way — no need for back-ups. The Type H spider is equipped with a guard gate to prevent damage to slips by elevator. Plain gate, still lighter in weight, is optional at same price.

Crews tell us that they like the Type H tubing spider's new light weight — like its smooth, fast operation — like its segment teeth. The full set of 12 segments is replaceable on the job, at about the same cost as resharpening conventional slips. And speaking of price, there's a lot more value in this spider than its low cost would suggest!

Get the Best — Get Guiberson.

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U. S. A.

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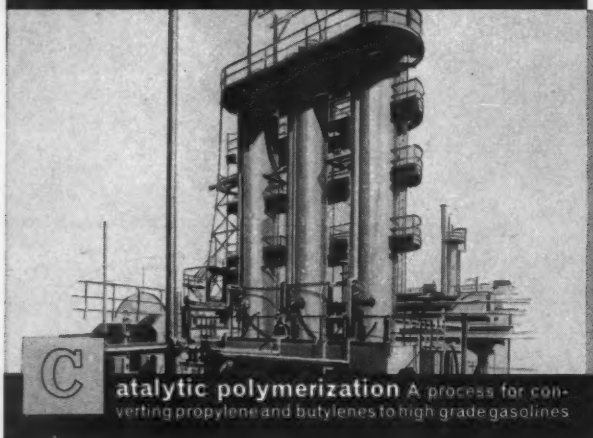
Everywhere

Somewhere on these pages is a

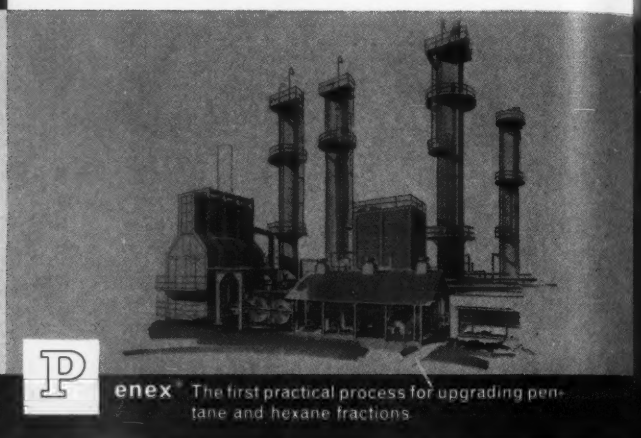
UOP

answer to most every petroleum processing problem.

Working out the solution to a processing problem can be a pretty tough assignment for any refiner. But this is a UOP specialty and it's highly probable that UOP can come up with the right answer. Perhaps, we don't have all the answers right on tap but our more than 40 years of research and engineering development in oil refining technology is pretty good assurance that we can work them out. Quite possibly you will find

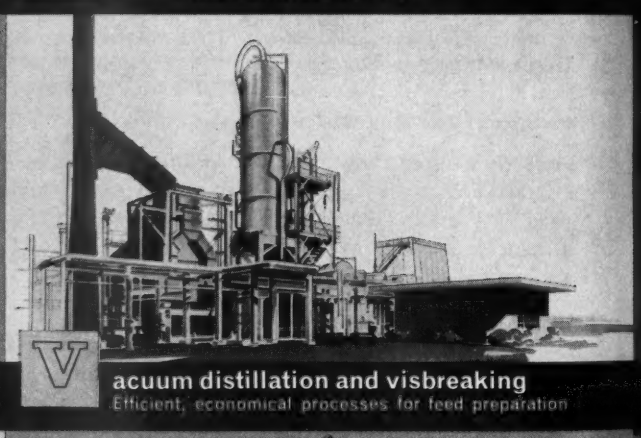


Catalytic polymerization A process for converting propylene and butylenes to high grade gasolines

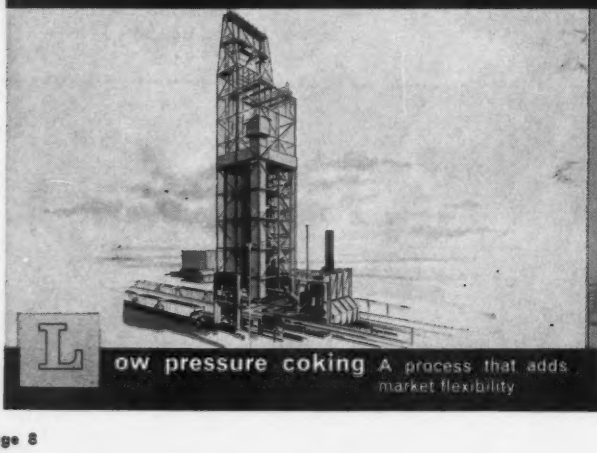


Penex® The first practical process for upgrading pentane and hexane fractions

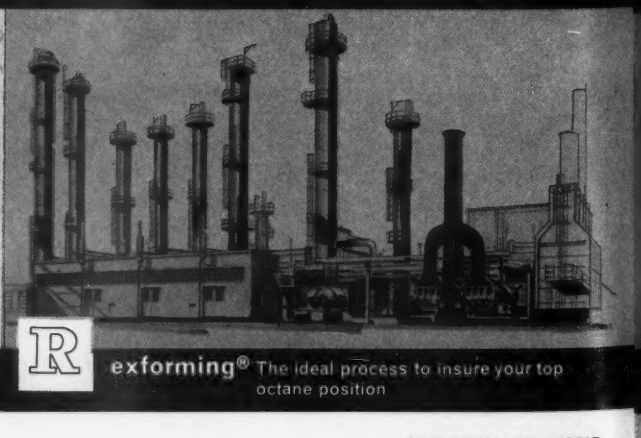
Fluid catalytic cracking Improved heavy oil conversion process for higher yields and octane numbers



Vacuum distillation and visbreaking Efficient, economical processes for feed preparation

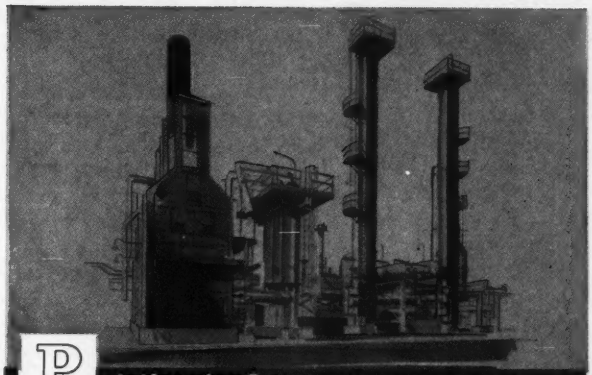


Low pressure coking A process that adds market flexibility

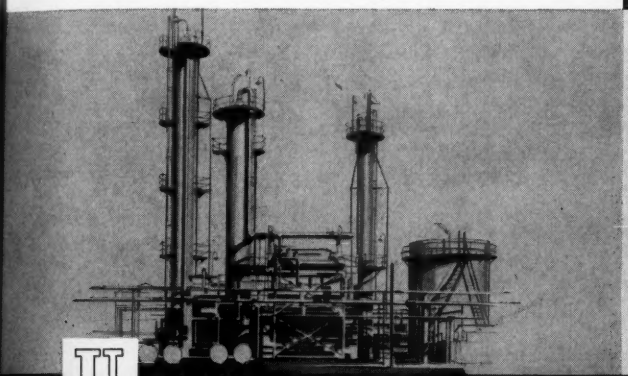


Rexforming® The ideal process to insure your top octane position

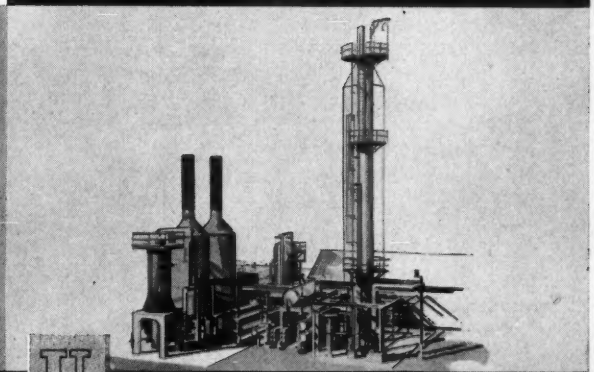
the solution among the processes shown here. For these represent only some of the refining and petrochemical processes UOP makes available to all refiners, anywhere. If you would like to know more about all the refining and petrochemical processes available from UOP we'll be glad to send you our handsome new 36 page brochure describing these more fully. Just drop us a line on your company letterhead.



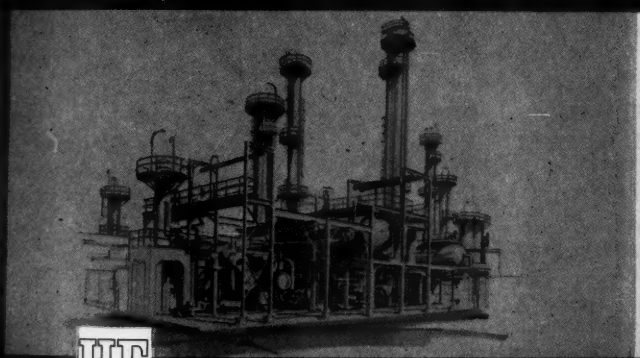
P latforming® The most popular process for upgrading gasolines



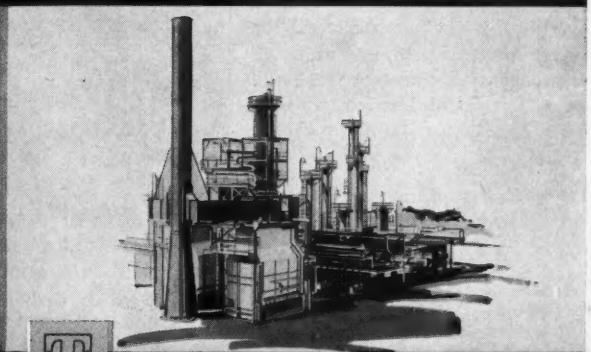
U nisol® A finishing process without octane degradation



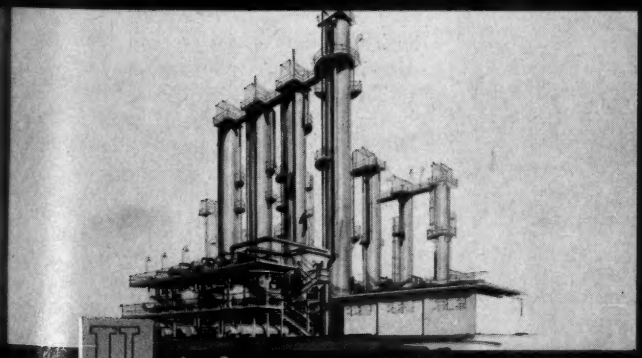
U nifining® A modern process for completely purifying petroleum distillates



HF Alkylation A catalytic process for producing alkylate



T hermal cracking An improved design of a basic refining process



U dex® A process for separating gasoline into high and low octane fractions

UOP

UNIVERSAL OIL PRODUCTS COMPANY

30 Algonquin Road
Des Plaines, Illinois, U. S. A.

MORE THAN FORTY YEARS OF LEADERSHIP IN PETROLEUM REFINING TECHNOLOGY

*Trademark

can mean much to the future of any prospector for oil.

Bottom Hole Money & Farmouts

In addition to dry hole money, there is a second form of contribution, known as "bottom hole money." This is financial aid in an agreed amount given to the person or organization drilling in a specific area, by other persons or organizations having interests in the same general region, for carrying a given well to a predetermined bottom hole depth. In this instance the well must be carried to the depth stipulated, unless it finds commercial production at a higher level; the contributor of the bottom hole money must have free access to all the information developed during the drilling process; and he must pay the sum agreed upon whether or not the well eventually proves to be a producer. The "farmout" is still another sort of speculative two-way deal in which one operator turns over to another operator for drilling, all or any part of a lease. The reward of the latter for his labors is a portion of any oil and gas that might be produced. The agreement, of course, defines all the essential operational and other details and especially how the spoils, if any, shall be divided.

The Switch to Offshore

These share-the-risk agreements have become increasingly popular as the cost of exploration and production has risen gradually higher. If I may coin an expression, and it's too late now to stop me, it takes a rich man to get rich in the production end of the oil business in these precarious times. Consider California's predicament, for example, as this is being written. There hasn't been a major oil find since the prolific Cuyama field in 1949, and prospectors are turning to offshore leases in a last hope of bringing dwindling production back into stride with increasing demand.

What it Takes

But offshore leases are neither to be bought nor shared for chicken feed. So keen is the competition for them that when they are thrown open for bid by the State Land Commission, they sell for sums that definitely dampen the aspirations of any shoe clerks. And the price of the lease is merely the beginning of the investment. I have recently been aboard a mobile platform, that is about to be used for exploratory core drilling along the California coast. With all its accoutrements this thing cost two million smackers, and its services will set back any operator who wants to use it between five and six thousand dollars a day. When and if a promising structure is located, an offshore island will probably be built for another million pieces of eight. Then drilling can begin.

Small Investors Are Out

It doesn't take very deep cogitation to show that this type of speculation can only be afforded by those who don't need to speculate. That is why even the largest oil companies find it advisable to tackle the offshore challenge in groups. It is all much too big for the small investor. However, if the little fellow really wants to get into the gamble, he can buy stock in the involved companies, and sooner or later can share with them all the joy of winning or all the sorrow of losing. It is not so much the amount one loses that disturbs the equanimity, as it is the relationship between the amount one loses and the amount one has left.

Not so Simple

Returning to the landman and his diverse concerns, this presentation, as any landman will assure you, is a very elementary and incomplete account of his interests and responsibilities. The signing up of property owners to unitization agreements for the ultimate benefit of all has been mentioned as being often fraught with frustrating circumstances. Any of the common species of leases and agreements cited, indeed, may look like pretty easy going at a casual glance and then suddenly becomes enmeshed in a tangle of involvements that would test the patience of a modern Job.

Finally—The Reward

Besides all that, it is to be remembered that in practically every deal the landman makes, he is in contest with brokers, lease hawkers, local realtors, and, naturally, his regular competitors from other oil companies and consulting groups. Life for him, thus, is no bed of swansdown . . . but, he loves every minute of it. Tracing down his victims and simultaneously dodging the guys by whom he himself is being traced, is a Charlie-Channish adventure that he seems to enjoy thoroughly. And what, think you, could be more exciting than carrying around a signed check that may be good for anything from zero to infinity?

COSASCO Division of Perfect Circle to Be Handled by Coast Agency

Advertising for the COSASCO Division of Perfect Circle Corporation will be handled by John Ramsey Company of Los Angeles, it was stated in a joint announcement from Perfect Circle and its agency Henri, Hurst & McDonald. COSASCO, which manufactures access fittings and unitized wellheads for the petroleum industry, headquarters in El Monte, California.

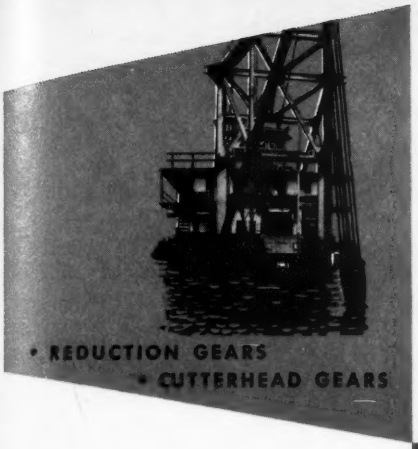
Henri, Hurst & McDonald is the agency for the parent company, Perfect Circle Corporation.

Oil Shale Top Meeting Subject

Highlighted by two papers on oil shale, the 4th annual meeting of the Rocky Mountain section of the Society of Petroleum Engineers, American Institute of Mechanical Engineers, will be held March 3-4 at the Cosmopolitan Hotel, Denver. Dr. Thomas D. Nevens, University of Denver Research Institute, will report on the institute's pilot plant west of Englewood, where on trial is the Aspeco process. Another paper will deal with shale economics. Willard Bauman, Gulf Oil, is arrangement chairman. J. D. Harris, Core Laboratories, is host section chairman.

Mount Poso Test Working

Bradford Bishop as operator plans to take his current test at Mount Paso to some 1500 feet. The well, Bishop No. 102, is on Section 22-27s-28e, Kern County. Ivy Drilling Company is contractor.



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For more profitable operating hours

LUFKIN marine designs feature Sykes precision generated herringbone gears throughout . . . mounted in heavy duty split housings . . . for the ultimate in quiet dependable operation . . . marine reduction gears, reverse reduction gears and geared compounds . . . a wide range of models from 450 HP to 2500 HP and standard ratios up to 5 to 1 maximum . . . cutterhead reduction gears . . . in-line vertical offset from 100 HP to 1200 HP.

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Personalities IN THE NEWS

Bates and Eastin Advanced at Shell

W. F. Bates has been named area production manager for Shell Oil Company's west of the Rockies operation, S. F. Bowlby, Shell's Pacific Coast area vice president announced.

W. F. Bates

B. P. Eastin, whom Bates replaced, has been appointed manager of production research for Shell Development Company's exploration and production research division in Houston, Texas.

Bates, until his recent promotion, has been assistant to Shell's Pacific Coast area vice president. A graduate of Stanford University with a B.A. degree in civil engineering, Bates was first employed by Shell as an engineering trainee in Long Beach, California. His experience with the company includes field positions in Bakersfield, the Los Angeles Basin, and Ventura where he was Shell's division production manager. Bates was a Shell representative to the World Petroleum Congress held at the Hague in 1951. He is a member of the Los Angeles University Club, Petroleum Club, and the A.P.I.

APOLOGIA!

This item should be printed in red ink to match our complexion. In the lead paragraph of the last Grapevine, we were guilty of an inexcusable brodie that has us blushing a deep crimson. Writing of Bill Brooks' migration to Fort Worth, as regional sales manager, we associated him with the wrong company. Bill, as practically everyone knows, is a high echelon member of the Byron Jackson Division of Borg Warner Corporation and how we came to affiliate him with any other concern, after knowing him and BJ intimately for some twenty-five years, we will never know. All we can do now is apologize abjectly and promise in future to exercise a tighter control over the type gremlins.

Eastin, production manager for Shell's Pacific Coast area since 1954, is a graduate of the University of California at Berkeley with an M.S. degree in mechanical engineering. Eastin has held a number of field and administrative jobs with Shell in Ventura, San Francisco, Los Angeles and Long Beach, California and Casper, Wyoming.

B. P. Eastin

"A bright economic outlook for the Central Valley is virtually assured by the explosive population growth that is taking place in California and the nation as a whole." This was observed by T. S. Petersen, Standard Oil Company of California president, in a speech on "The Agricultural and Industrial Future of the Great Central Valley" at a meeting of the California State Chamber of Commerce in Stockton.

B. DeWitt Mitchell of New York City, is the new executive vice president of Yucca Mining & Petroleum Co., Inc. A geologist and petroleum engineer with more than 20 years' experience in the banking and investment business, specializing in oil and mining fields, DeWitt has taken up residence and headquarters in Alburquerque, New Mexico, with a branch office in Los Angeles.

Paul J. Patton, George M. Merchant and Clarence I. Mitchell are directors of the Patton Exploration Company, Inc., of Riverside.

Principals of the new California Oil Tool Company in Bakersfield are two widely known members of the petroleum fraternity — Eugene C. Prehoda Jr., and E. W. Voice. The company's main offices are at 4475 Pierce Road, Bakersfield.

Similar to other cities, many hundreds of boys in the Bakersfield area from 9 to 15 years are being offered the chance of participating in Union Oil Company's 76 Sports Club Clinics. Earl M. Welty, manager of the company's press relations department, said the club has more than 10,000 members sharing in its sports activities.

WE USE *GASOS* EXCLUSIVELY

BECAUSE WE CAN'T AFFORD TO TAKE CHANCES

As the engineers who specify pumps, we have an obligation toward our field people. Their job is to keep our pipe lines flowing. Ours is to help them. They are entitled, we feel, to the best we can give them in pumps, and we know of no pumps with a longer, more consistent and more impressive performance record than Gaso's. That's why we specify Gaso Pumps exclusively in their capacity range.

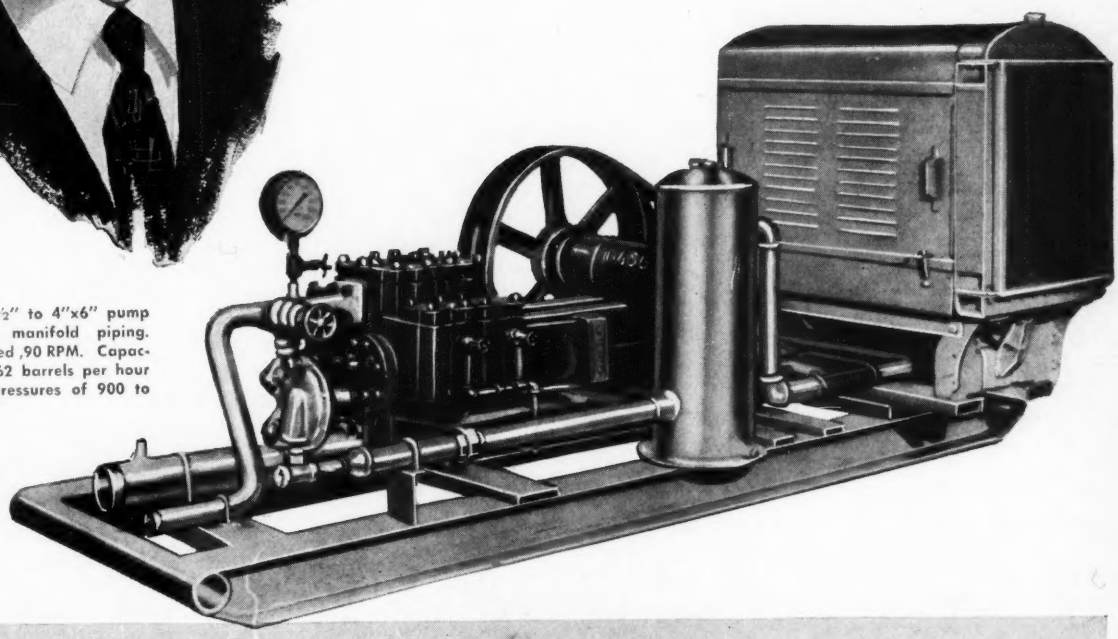


Fig. 1849—2½" to 4"x6" pump with special manifold piping. Maximum speed ,90 RPM. Capacities, 59 to 162 barrels per hour at working pressures of 900 to 350 PSI.

GASO PUMP & BURNER MFG. CO.
TULSA, OKLAHOMA
Export Office: 149 BROADWAY, NEW YORK

PACIFIC COAST DISTRIBUTORS
POWER PUMPS, INC.
Long Beach, Calif. — Farmington, N.M.

GASO PUMPS
for every oil industry need

R. M. "Bob" Pyles, founder and President of the Pyles Boys Camp (seated) receives deed to Huntington Beach acreage from Warren C. Johnson, Manager Southern Division, Producing Department (left) and Ken W. Kendrick (right) Southern California Regional Vice President, Standard Oil Company of California, Western Operations, Inc. Property will be the site of the new camp headquarters.

Jack Danciger of Fort Worth, Texas, widely known in California oil circles, has presented countless objects of interest to the University of Texas that deal with Latin America. Danciger is an honorary consul for Chile in Texas and Oklahoma.

John E. Baker, chairman of the Southern Ute Indian Tribal Council, said the tribe was using money from oil and gas leases in the Four Corners area to raise the standards of Indians there, as well as increasing productivity of the land.

William & Lane, Inc., Berkeley, has been appointed industrial, petroleum and marine distributor for Northern California by Detroit Diesel Engine Division of General Motors Corporation.

Vern Crider, long prominent in oil and other business pursuits in Bakersfield, has announced his intention to seek the position of Kern County Supervisor for District 2. He has lived in the district for 31 years and maintains his residence at 2530 Bank street.

Andrew G. Alpha of Signal Oil & Gas Company has been elected as president of the Rocky Mountain Association of Geologists for the ensuing year.

Fred L. Hartley of Los Angeles, Union Oil's vice president for research and a member of the Colorado Mining Association executive committee, disclosed the latest findings of the company's extensive research program at the recent 61st National Western Mining Conference in Denver. Recognizing the importance of a new branch of the petroleum industry, the Conference featured an oil shale section.

R. Wayne Goodale, Standard Oil Company of California lubricant division manager, was elected vice president of fuels and lubricants for the Society of Automotive Engineers at its annual meeting in Detroit.

Earl E. Kain of Los Angeles, 73, died following a long illness. He was active in oil and gas land leasing during many of California's most important fields, including Torrance, Elwood and Ventura Avenue.

Oil Man Charles E. Kings, a native of Casper, Wyoming, and formerly identified with the petroleum business in Montana, now makes headquarters in Bakersfield.

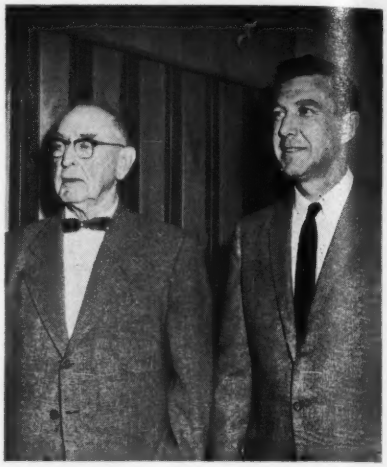
Dr. D. B. Blackstone, University of Wyoming professor of geology, was the principal speaker at the recent meeting of the Four Corners Geological Society at Albuquerque. He discussed "Paleo Tectonics of the Rocky Mountains."

Art Albiston, drilling superintendent for Brown Drilling Company of Long Beach, currently is making headquarters at the firm's office at Willows in Northern California. Inasmuch as most of Brown's contract work is in the north, the Bakersfield office was closed some months ago. The company's foreign operations just now are in Turkey, Venezuela and other points of oil interest.

Dr. C. R. McEwen has been promoted to Section Leader at Union Oil Company of California's Research Center, Brea, California, according to an announcement by Fred L. Hartley, Vice President of Research.

Herschel C. Smith New President H. C. Smith Oil Tool

At a recent meeting of the board of directors, Herschel C. Smith was elected president of the H. C. Smith Oil Tool Co. He was formerly executive vice president. H. C. Smith,



Pictured above is H. C. Smith, Chairman of the Board and Herschel C. Smith the new President.

founder and previous president of the company, was named to the newly created position of chairman of the board of directors. Herschel C. Smith, who has been associated with the company since 1936, was made general superintendent in charge of production in 1943 and became secretary and general manager in 1945. He was elected vice president and general manager in 1953 and, 2 years later, became executive vice president.

Petroleum Society Names Klein to Ad Committee

Bernard F. Klein, Vice President and Technical Director, Herbert E. Hill Advertising, Inc., Los Angeles, has been appointed to serve on the Advertising Committee of the Society of Petroleum Engineers during 1958.

The committee governs the content, character and quality of advertising in Society publications.

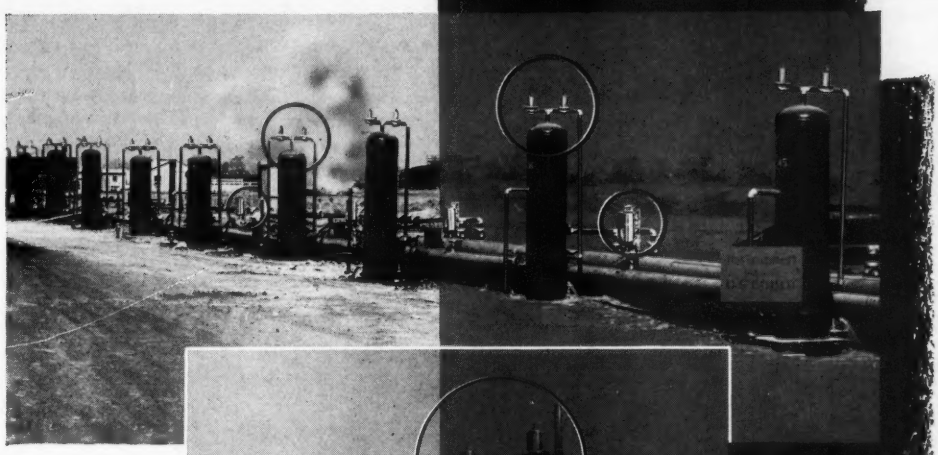
Lost Hills Wildcat Idle

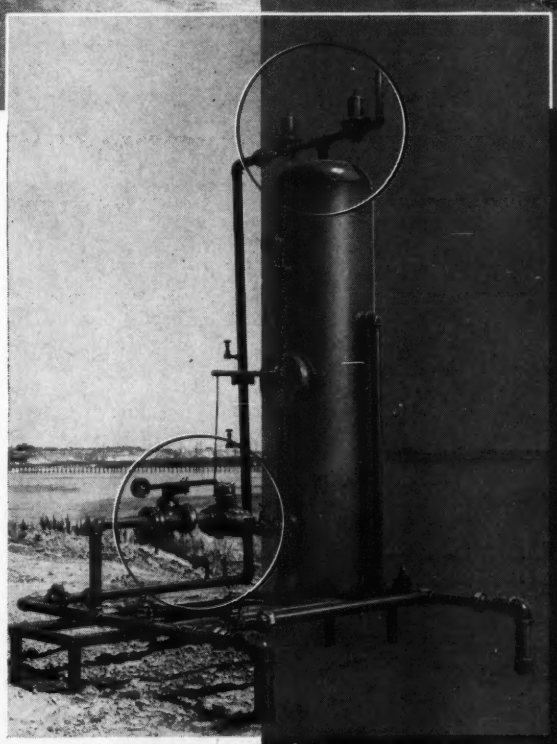
Carl Long's Maria No. 1 wildcat on Section 17-25s-21e at Northeast Lost Hills in Kern County is idle after it was plugged at 635 feet. Total depth of the well is 4040 feet.

Day or Night...

RELIANCE REGULATORS

...always on the job!





RELIANCE Relief Valves (RV) and AMERICAN Orifice Meters insure safe, positive control for separators on this California lease.

Twenty-four hours a day, day after day, year after year, RELIANCE Regulators are on the job providing safe, accurate, trouble-free, dependable service.

RELIANCE Regulators aid in providing positive automatic control of fluid in every phase of oil and gas production, from well head to finished product.

For 45 years, RELIANCE has supplied the petroleum industry with Regulators that have performed service under every conceivable condition. RELIANCE Regulators have earned the reputation of providing safe, efficient, low-cost service over the years.

Bulletins are available on all types of RELIANCE REGULATORS

RELIANCE Back Pressure and Relief Valves working in conjunction with RELIANCE Liquid Level Valve (LV10) on separator.

AMERICAN METER COMPANY
INCORPORATED (ESTABLISHED 1836)

AMERICAN METER CO MEASUREMENT ENGINEERS

RELIANCE REGULATOR DIVISION
ALHAMBRA, CALIFORNIA

Rocky Mountain NEWS

Colorado—Idaho—Montana—New Mexico—Utah—Wyoming—Western Canada

Wyoming

El Paso Natural Gas had a gauge of 7,800,000 cubic feet of gas per day from the No. 1 Desert Springs Unit, n½ se 26-21n-98w. The operator has shut in the well, which is located in Sweetwater County. The company has released information on the operation, which obtained production in the Mesaverde. Gas production from the Lewis was previously obtained at the rate of 5,620,000 cubic feet per day. Whether this formation will be further tested has not been announced.

Ohio Oil is coring at the No. 1 Govt., c se 12-20n-95w, in the Wamsutter area of Sweetwater County. Last depth reported was 10,204 feet. The well has yielded gas shows in the Mesaverde but none has been commercial.

The California Co. is preparing to drill at the No. 1 State, in section 4-38n-97w, Fremont County. It will be a test of the upper Cretaceous at approximately 12,000 feet.

Skelly Oil is preparing to test the Minnelusa at the No. 1 Govt.-Dunning, c sw sw 19-52n-67w, Crook County. Shows were found earlier in this formation. The well has been drilled to 5777 feet total depth, and casing run to 5730 feet.

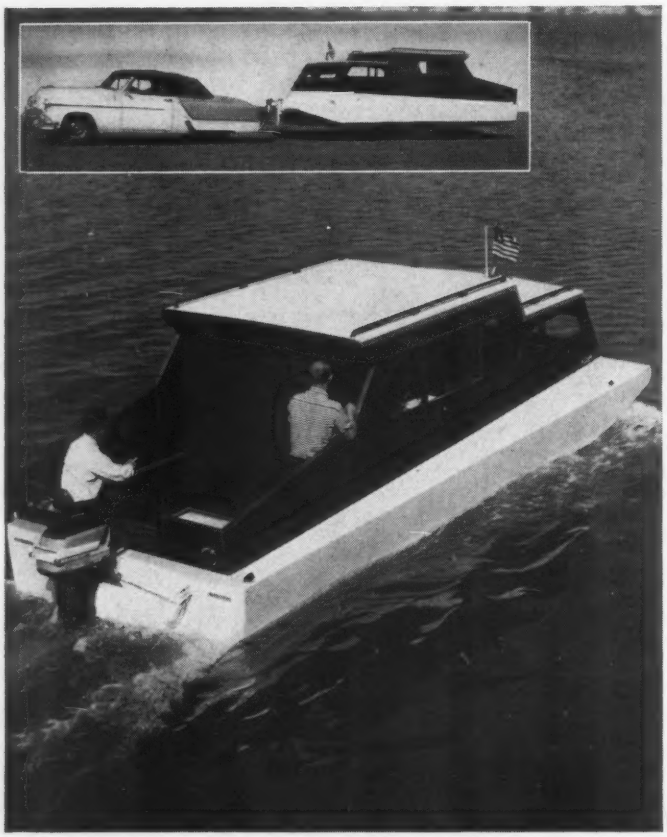
Shell Oil is drilling below 12,720 feet at the No. 23-20 Govt., ne sw 20-32n-82w, Natrona County. The well is located in the Poison Springs area.

Mountain Fuel Supply Co.'s No. 3 Dry Piney Unit, ne sw sw 4-27n-114w, Sublette County, flowed at the rate of 2,420,000 cubic feet of gas per day from the Second Frontier on a drillstem test of the interval 7637-73 feet.

Lion Oil is preparing to drill an extension to the southwest of the Meyer Gulch field discovery drilled in Washakie County by Superior Oil.

Montana

Sohio Petroleum has the Devonian as objective at the No. 1 Hortens-Campbell, w½ se sw 7-17n-15e, Fergus County. At last report, the well was drilling in the Heath formation, topped at 2620 feet. The wildcat will go to 5800 feet.



Roger H. Kendall,
President
Neptuna Corporation,
Glendale, Calif.
Manufacturer, "Neptuna" land-and-water cruiser

"Seagoing Trailer" Launched by Telephone Selling

"We do all our selling by telephone," says Mr. Kendall. "Our national magazine ads carry a 'Call Collect' message. Results? Half a million dollars in sales in just two months . . . from 112 out-of-town calls averaging $1.85 in cost. Personal selling by telephone is the only low-cost way to quickly put a new product on the map!"

Merchandising a product nationally and speeding up collections are just two of many ways in which the telephone is helping firms like Mr. Kendall's become leaders in their field. We'd like to suggest other ways the telephone can help you bring in new orders, cut costs, widen sales coverage. Our Long Distance specialists are at your service. Just call our business office.

Working together to serve you better

Pacific Telephone

DU PONT *Petroleum Chemicals* NEWS

Number 84 in a Series of Bulletins for the Petroleum Industry

FEBRUARY 1958

A STORY OF MEN AND EQUIPMENT

Turning DuPont's automotive research into service for refiners

COLOR...
boon to petroleum merchandising

DuPont, a leader in the research and manufacture of dyes since 1916, has developed brilliant, appealing colors for petroleum products.

Since the 1920's dyes have been used in gasoline to indicate TEL content. In later years refiners have become increasingly color conscious. Today, dyes are used in all types of petroleum products – kerosine, home-heating oils, tractor and diesel fuels, and lubricating oils and greases.

Merchandising value

The trend toward increased use of colors in petroleum products has been due largely to industry appreciation of its merchandising value.

In products other than gasoline, brand identification through the use of color can provide an important competitive selling advantage. This has been ably demonstrated by a number of motor oil and grease marketers.

Now, heating oil and diesel fuel suppliers are becoming increasingly interested in the merchandising value of petroleum dyes. The current interest in "premium" heating and diesel fuels seems to be apparently increasing the demand for merchandisable color.

A secondary but extremely practical reason to use petroleum dyes is leak detection. Color quickly points out wherever a leak occurs, making quick repair possible. Hence color in this use can greatly reduce loss of product and, at the same time, promote safety, protecting personnel against fumes, and property against the hazards of fire.

Let us help you

In addition to oil-soluble dyes for petroleum products, DuPont's over-all experience in the world of color covers a uniquely broad range of product categories – textiles, paints, colored plastics, photographic film, and basic pigments manufacture, to mention a few. And we are prepared to offer you the most comprehensive color assistance available in the additives field.

To take advantage of this assistance, you are invited to discuss your color selection and technical dyeing problems with one of our Petroleum Chemicals Division representatives.

by R. O. Bender

Adapting your fuels to satisfy the growing octane appetite of modern high compression ratio engines involves a rapidly changing technology. As a leading supplier of tetraethyl lead and other additives for petroleum products, the DuPont Petroleum Chemicals Division provides a wide range of services to help you keep pace with these constantly advancing fuel requirements.

PAUL RICHARD is a DuPont Petroleum Chemicals Division automotive liaison man in Detroit. He acts as a sort of "clearing house" for technical information of interest to both the petroleum and automotive industries.

Behind these services are the research experience and know-how of scores of DuPont chemists and engineers; the extensive facilities of the DuPont Petroleum Laboratories; and our continuing liaison work with the automotive industry. All these combined help us produce technical information that helps to bridge the gap between the automotive and refining industries.

Although most of our combustion chamber and other automotive research

ADVERTISEMENT—Prepared for the Petroleum Chemicals Division of E. I. du Pont de Nemours & Company (Inc.)

OVER

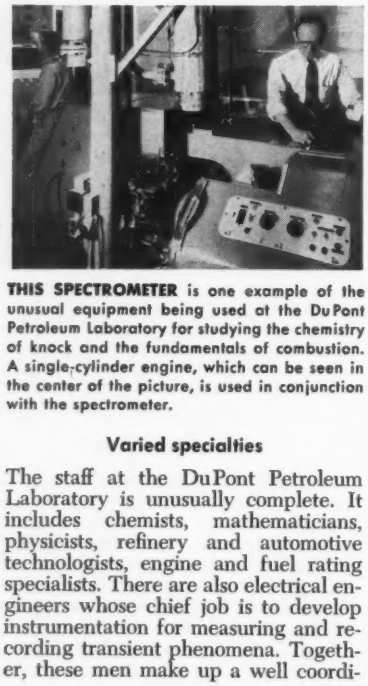
DUPONT *Petroleum Chemicals* NEWS

CONTINUED *Research Services*

activity centers around the DuPont Petroleum Laboratory in Deepwater, N. J., an important part of our investigations has its roots in the automotive plants in Detroit. Paul Richard and Donald Diggs keep in close touch with new automotive engine developments. They study compression ratio trends as well as other design factors which may affect the quality of fuel the new engines will need. Their information is used at the Petroleum Laboratory to build or modify the future type engines in which fuel performance is studied. Between this close automotive industry liaison and the Laboratory's own investigations, our Petroleum Chemicals Division is able to offer the refining industry research information of timely interest and value.

Unique equipment used

To develop and tailor this information to your needs, the Petroleum Laboratory maintains a fleet of specially equipped and instrumented road test cars. These include advanced design, as well as current model engines. The electronics section of the Laboratory has developed also many unique instruments to study the mechanisms of knock and other abnormal combustion phenomena.



THIS SPECTROMETER is one example of the unusual equipment being used at the DuPont Petroleum Laboratory for studying the chemistry of knock and the fundamentals of combustion. A single-cylinder engine, which can be seen in the center of the picture, is used in conjunction with the spectrometer.

Varied specialties

The staff at the DuPont Petroleum Laboratory is unusually complete. It includes chemists, mathematicians, physicists, refinery and automotive technologists, engine and fuel rating specialists. There are also electrical engineers whose chief job is to develop instrumentation for measuring and recording transient phenomena. Together, these men make up a well coordinated research team with extensive training and experience in the field of combustion.

Results available

The research results developed by this team are made readily available to the whole refining industry. They are published periodically in papers presented to scientific organizations and industry technical associations.

Write us for more information about this program or published results of our automotive research work.

You ought to know...

ALFRED R. MULLIS is Assistant Director of Sales of the Petroleum Chemicals Division. Prior to this assignment, he was manager of the Division's Eastern Region with headquarters in New York.

Mr. Mullis joined the DuPont Company in 1947 as a sales representative in the Gulf Coast Region. He was appointed manager of this region in 1951 and transferred to New York the following year.

Mr. Mullis is a graduate in chemical engineering from Rice Institute. His first job was on the research and development staff of a large refining company. During World War II, Mr. Mullis spent four years in the Navy as a petroleum inspector for the Bureau of Ships.

When he was promoted by DuPont to Assistant Director of Sales, Mr. Mullis succeeded Mr. W. Sam Carpenter, III who became Director of Sales. Mullis's former position as manager of the Eastern Region was filled by Earl G. Bennett, formerly manager of the Central Region with Chicago headquarters. Mr. Bennett was succeeded by Donald W. Frison, formerly manager of the Mid-Continent Region, with headquarters in Tulsa.

HOW DuPont DMF Antistall Additive prevents carburetor-icing

When vaporizing in a carburetor, gasoline absorbs heat from its surroundings. This cools the metal parts of the carburetor and the water vapor in the air which is drawn into the carburetor.

This cooling process causes the moisture to condense and freeze when the atmospheric temperature is anywhere in the range from 22 to 55°F. – and when the relative humidity is 65% or more. Ice then forms in the carburetor causing the engine to stall from fuel starvation.

DuPont DMF protects the motorist against annoying stalls by preventing the formation of ice in carburetors. The DMF does this by lowering the freezing point of the condensed water in the carburetor to well below 32°F. This action is positive and unfailing.

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OVER

A-6048

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In Powder River County, the California Co. has abandoned the No. 1 Govt., sw ne sw 31-9s-45e, at 5770 feet total depth.

Shell Oil Co. has completed the No. 13-8 Unit, in section 8-4n-62e, Fallon County, for a gauge of 257 barrels of oil and 60 barrels of water per day from the Red River. Production was obtained on pump from the Red River. The well is in the East Little Beaver area.

Carter Oil and Mobil Producing are drilling ahead at the No. 1 Wheatley Govt. in section 7-9s-22e, Carbon County. This well yielded gas at the rate of 6,610,000 cubic feet per day from the Fuson on a drillstem test. The recovery included 465 feet of distillate and 390 feet of distillate cut mud. It is northwest of the Clark's Fork field.

Mobil Producing will test the Madison at 6400 feet at the No. F-13-21-G, c nw sw 21-9s-24e, Carbon County. The well was last reported drilling in the Dakota.
spotted over seven miles southeast

Utah

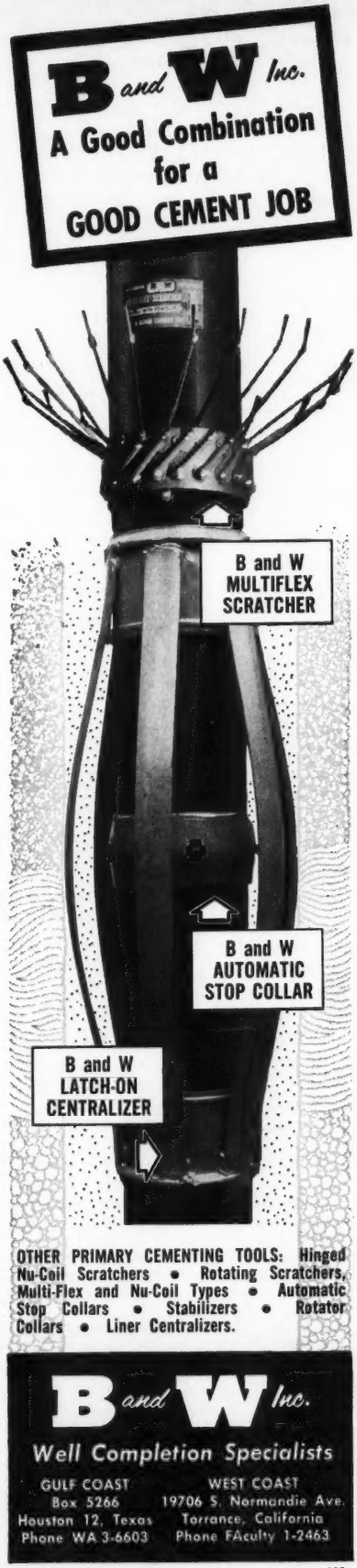
Southeast of the White Mesa field in San Juan County, Carter Oil Co. has staked location for the No. 1 Navajo-117, in section 18-42s-25e. It is five miles from nearest production in the field and is scheduled as a 5900-foot test of the Paradox.

Shell Oil is drilling a deep test in Carbon County at the No. 1 North Springs, c se sw 27-15s-9e. It will go to the Mississippian at 12,000 feet. Shell also will test the Mississippian at the No. 1 Miller Creek, c ne ne 26-15s-10e, also in Carbon County.

An eastward extension of the McElmo Creek field, San Juan County, has been completed by Superior Oil at the No. J-1 Navajo, in section 9-41s-25e. Operator gauged a flow of 537 barrels of oil in a 24-hour test of perforations at five intervals. On the north side of the field, Superior is completing the No. C-8 Navajo, in section 5-41s-25e.

Phillips Oil is releasing no information on the No. 6 Navajo-A, nw se nw 15-41s-24e, San Juan County. The well is being drilled as an offset to the company's No. 2-Navajo-A, c ne ne 16-41s-24e, which also is tight. The wells are north of the White Mesa field.

Texas-Gulf Producing is drilling a Mississippian test at the No. 1 Federal, c ne se 26-26s-20e, Grand County. Objective depth is 9500 feet. It is of a Mississippian discovery drilled by Pure Oil at Big Flat.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New Mexico

Miami Petroleum is nearing its objective at the No. 1 Hoover Ranch, c nw nw 14-12n-28e, San Miguel County. The wildcat is scheduled for 7000 feet.

Tennessee Gas Transmission is continuing tests at the No. 1 Berger, c nw ne 21-26n-11w, San Juan County, after recovering a flow of oil up to 12 barrels per hour.

Caswell Silver and Douglas Corp. obtained a pump gauge of 183 barrels of fluid, 90 per cent oil, in a 60 hour test of the No. 4-8 Federal, sw sw sw 8-19n-5w. The well has been shut in.

Royal Development will abandon the No. 1 Paquenche, se sw se 10-24n-8w, San Juan County, at 6940 feet total depth.

Standard Oil of Texas recovered 420 barrels of oil in a test of 20½ hours at the No. 6-22 Federal, nw ne sw 22-24n-7w, Rio Arriba County. The well is a northern extension to the field, where this operator drilled the discovery at the No. 1 Federal 1-27. Production in the discovery is from the Gallup.

El Paso Natural Gas has completed a dual producer at the No. 14-X San Juan Unit 27-4, se ne sw 18-27n-4w, Rio Arriba County Gas production was obtained from both the Dakota and Mesaverde. Best production was from the Mesaverde, with a flow of 3,219,000 cubic feet per day.

Superior Oil found shows in cores at the No. 1 Navajo-K, se se se 32-18n-16w. The cores were taken at 999-1019 feet and 1019-38 feet.

Colorado

Malco Refineries pumped oil at the rate of 216 barrels per day on completion of the No. 1 Federal, nw se se 23-6n-90w, Moffat County. The recovery included 100,000 cubic feet of gas per day, with production obtained from the Two Creek and Niobrara formations at the intervals 6210-65 feet and 6300-6675 fett. Production from the latter interval was through open hole. The well was drilled as an offset to this same operator's discovery in the Buck Peak field. Although most production in the field is from the Tow Creek and Niobara, the discovery found oil in the Weber.

In Kiowa County, D. D. Harrington recovered gas at the rate of 1,068,000 cubic feet per day at the No. 1-A Erramuspe, c sw ne 34-20s-48w. Recovery was from the Morrow through perforations at 4763-75 feet.

Shell Oil is running production casing at the No. 1 Federal Land Bank, c se ne 21-34s-44w, Baca County. Gas and oil were recovered in a drillstem test of the Pennsylvanian at 4096-4125 feet.

Hathaway Co. and Big Horn Powder Corp. recovered gas and oil on drillstem tests of the No. 1 Federal, in section 11-37n-20w, Montezuma County. Best oil recovery was at 5457-67 feet, where 1540 feet of oil and 100 feet of heavily oil and gas cut mud and salt water were returned. The gas was gauged at 577,000 cubic feet per day on this test.

Davis Oil Co. has announced it will drill six wells in Yuma, Lincoln, Kit Carson and Washington Counties in a program to evaluate farmouts from Pan American Petroleum Corp.

Lion Oil will drill to the Mississippian at its Kiowa County wildcat, the No. 1 Clair, c ne se 23-19s-54w. At last report, operator was approaching objective depth.

Petroleum Inc. has staked location for a J sand test at the No. 1 Simpson, c se nw 13-1s-58w, Adams County. Location is in wildcat territory and is southwest of the Beacon field.

Gulf Oil Corp. is drilling an eastern offset to Williamson-Kissinger & Co.'s discovery in Morgan County. Gulf's No. 1 Price, c sw ne 12-4n-60w, will offset the No. 1 Matthews. Williamson - Kissinger is drilling another offset south of the discovery.

Carter Oil has plugged back to 5925 feet at the No. 1 Glade Unit, c ne sw 11-41n-17w, Dolores County. On a test some time ago slightly below that level, operator recovered gas at the rate of 8,170,000 cubic feet per day. Salt water was recovered at 5970-96 feet.

Nebraska

James M. Cline has recovered oil from the Pennsylvanian at the No. 1 Rickard, c se sw 22-1n-57w, in Dundy County. Operator swabbed oil at the rate of 30 barrels per hour in a three-hour test of perforations opposite the Lansing-Kansas City and at the intervals 418-90 and 4230-48 feet. This rate was reduced in later swabbing.

Nebraska Drillers is drilling at the No. 1 Heidemann, c ne nw 12-13n-56w, Kimball County. This is the third well in the Arrowhead field, which formerly bore the designation Yung field and which has been renamed

Baumgartner Oil and Wytex Oil have cored and tested shows at the No. 1 Kreader, c ne ne 21-17n-51w, Cheyenne County.

O'Dell Oil is drilling a series of five wildcats in Garden County.

North Dakota

Gulf Oil is preparing to set pipe at its Renville County wildcat, where a drillstem test of the Mission Canyon yielded 1505 feet of free oil. The No. 1 Busch and Nemaha Royalty was tested at the interval 4185-4238 feet for the oil recovery, which was accompanied by substantial footage of oil and gas cut mud and 180 feet of salt water. The wildcat is spotted in n½ se nw 3-163n-85w and is five miles northeast of the Bluell field.

In another Renville County test, Anschutz Drilling has plugged back the No. 1 Christensen to the Mission Canyon after drilling into the Silurian at 6970 feet total depth. Water was encountered in the lower formation. The well is in c ne nw 7-158n-81w. Previous tests indicated commercial production in the Mission Canyon.

In Burke County, Mobil Producing recovered a flow of 160 barrels of oil in a 19-hour test of the No. F-31-20-P Probst, c nw ne 20-163n-92w. The flow was through perforations opposite the Madison at the intervals 6087-6107 and 6114-20 feet. The well is being drilled as a confirmation to Arrowhead Exploration's discovery in the Rival field.

Pan American Petroleum has installed pump at the No. 1 Groninger, s½ se ne 28-163n-91w, Burke County. Operator swabbed 20 barrels of oil and 25 barrels of water in 17 hours from the Midale through perforations and after acidizing.

Calvert Drilling Co., Inc., et al found production in the Nesson (Madison) at the No. 1 Dhuyvetter, located in section 33-162n-95w, Divide County. The wildcat is a mile and a half southeast of the Noonan field discovery.

Continental Oil made good recovery in the Tyler at the No. 3 Harris, sw nw se 24-11n-32e, Rosebud County. A drillstem test at 4797-4822 feet yielded 810 feet of oil and 840 feet of oil and gas cut mud. Operator has set production casing at the well, which is an extension of the Sumatra field.

Johnson Oil has abandoned a Cavalier County wildcat after drilling to the granite. The well, the No. 1 Moore, c nw nw 10-162n-63w, was carried to 3368 feet total depth.

An important Silurian discovery has been made by Amerada Petroleum at the No. 1 Shelvik, c ne sw 35-150n-97w, McKenzie County. In a drillstem test at 12,622-12,670 feet, operator recovered 1755 feet of free oil.

New Literature

The Fluid Packed Pump Company announces a new four page illustrated bulletin on the OILMASTER Insert Pump Anchor. Technical Bulletin No. T5801 covers installation and operational details of the Pump Anchor with the unique vertical-setting mechanism. Write Box 64, Los Nietos, California.

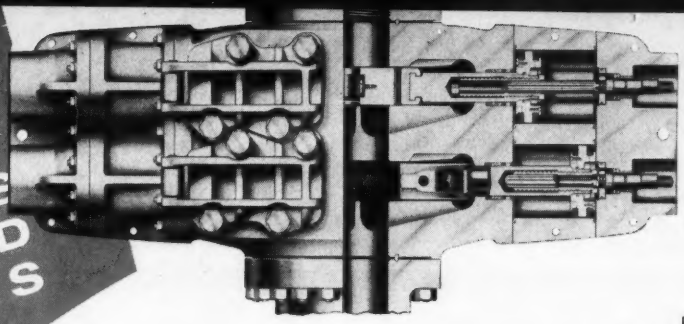
Bonelli Ranch Wildcat Drilling

Edward Lustgarten has set in motion his Lucky-Lust No. 1 well near the center of Section 14-4s-16e on a 400-acre lease from the Bonelli Lumber Company in Los Angeles County. Target is the Mohnian zone near 2000 feet, with the Eocene formation around 5500 feet in line for a test if things don't pan out as expected higher. Location is in Santa Clara River Valley and about a quarter-mile east of Honor Rancho production. Lustgarten shares interest in the play with George C. Atha, who is handling the geology and who has long been identified with oil development.

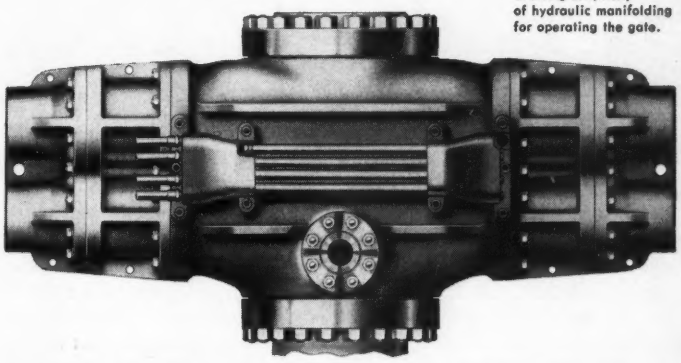
Universal Opens New Wilshire Office

February 15 was moving day for Universal Consolidated Oil Company, which now makes headquarters at 2975 Wilshire Boulevard. For many years the company maintained a suite at 417 South Hill Street.

There's only one way to get all of SHAFFER'S ADVANCED FEATURES



CUTAWAY VIEW
Showing direct hydraulic drive and self-draining ram compartments.



REAR VIEW
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Field Development

Monterey County Wildcat Drilling

Humble Oil & Refining Company is moving ahead below 1500 feet with its Edith M. Burchard No. 1 explorer on Section 18-22s-8e or three and one-half miles north of Jolon townsite and five miles northwest of Lockwood in Monterey County. Nearest production lies 14 miles to the southeast in the San Ardo field. Humble's Floyd L. Patterson No. 7-217 wildcat on Section 19-23s-9e in Lockwood Valley has been abandoned at 1225 feet in basement rocks. Marport Oil Company's Marport-Parley B-1 No. 2 test on the same section is drilling at 1700 feet or about three feet above target level. The company's No. 1 test on the section suspended drilling at 1971 feet. In the Parkfield area, Jene D. Munson is ready to drill Jack No. 1 wildcat on Section 1-24s-15e. The drill site falls one mile northeast of British American Oil's Cholame No. 26A, which was written off as a duster at 2255 feet.

Estrella Wildcat On Ohio Oil Agenda

All set to drill with Tine Gaiser the contractor is Ohio Oil Company's scheduled 5900-foot test in the Estrella area in San Luis Obispo County. The project is tagged Ohio-Humble-Smith No. 1 and is located on Section 35-25s-12e.

Superior Finals New Paloma Well

Superior Oil Company has placed on production another well in the pool it opened up last October at South Paloma. The new well, KCL No. 74-10, on Section 10-32s-26e was completed from both zones for an initial output of 470 barrels of 56.4 and 34 gravity clean oil through 10-13/64-inch beans from a total depth of 10,241 feet. The well is a northwesterly offset to the company's discovery producer. About a quarter-mile southeast of the discovery, F. M. Taylor as operator is drilling at 9800 feet with Superior-St. Sure No. 27X-11 test on Section 11-32s-26e on a farmout from Superior.

Rosedale Wildcat Test Interesting

In the primary stages is Chester Oil Company's Chester Oil Co. No. 2 wildcat project on Section 26-29s-26e in the Rosedale area of Kern County. The venture is designed as a test of the Lower Stevens and is located a half-mile or thereabouts south of the Rosedale field and four and one-half miles southwest of Universal Consolidated and State Exploration's play at East Gosford. The Chester well probably will be taken to somewhere around 8000 feet. Chester Oil Co. No. 1, the first well, was finaled in the southern part of the Rosedale field for 75 barrels a day from the Upper Stevens, the normal producing zone in the field.

Two Pyramid Hills Wildcats Scheduled

Doyle B. Barnes is at the starting line with two test wells at Pyramid Hills in Kings County. One drilling job is Pearson-Sibert-Philadelphia Orchard No. 25 on Section 30-24s-18e on a 3000-acre farmount from Pearson-Sibert Oil Company and Philadelphia Oil Company. The project will be taken to some 4500 feet at location

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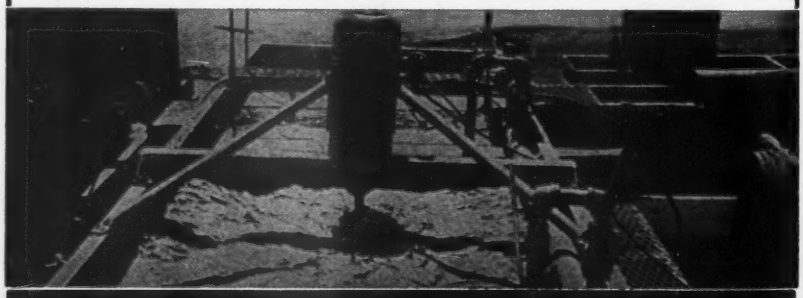

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about one-third mile south of Pearson Sibert's Orchard No. 43, which was given up last year at 5100 feet when shows were lacking to bottom. The other well is Ferguson-Bosworth-Meakin No. 1 on Section 33-24s-18e at the southeast point of the Pyramid Hills field on the Meakin lease and on an assignment from Ferguson & Bosworth. Target will be the Upper Point of Rocks oil sand zone overlying the Pyramid Hills thrust fault.

Tulare County Well Plugs Mack

Three miles west of Porterville in Tulare County and some distance northwest of Deer Creek field production, Perry Drilling Company's Blue Ridge No. 1 wildcat on Section 31-21s-27e has been plugged back from a total depth of 1937 to 1460 feet.

Southeast Bellevue Venture Under Way

Union Oil Company has still some distance to drill with its KCL No. 42-1, a 9300-foot test of the Stevens zone on Section 1-30s-26e in the Southeast Bellevue area in Kern County.

Santa Cruz Well Goes Off Board

Drilled to a total depth of 885 feet and with 7-inch pipe cemented at 190 feet, Humble Oil & Refining Company's L. P. Scaroni et al No. 1 venture on Section 19-11s-2w at Santa Cruz in Santa Cruz County has been relegated to history.

Walker Creek Wildcat Digs

Gulf Oil Corporation at last reports was drilling near 2000 feet with its Walker Creek-Navajo No. 1 explorer on Section 28-4n-26e in the Walker Creek area in Apache County, Arizona. The 10¾-inch surface pipe was cemented at 956 feet. Gulf is searching for production in the Mississippian formation from location around 10 miles from the southwest boundary of the Butte field in Utah and 12 miles southwest of Franco-Western Oil Company and Humble Oil & Refining Company's gas field discoveries a couple of years ago. Approximately 150 miles to the south in Apache County, Harrison Producing Company is drilling at a relatively shallow depth with a test 14 miles north of St. Johns. The drill site is on a 23,000-acre block and the well known as Fred Blair Townsend-Harrison Producing Company Fee No. 1 on Section 21-15n-29e.

White Mesa Test Near Objective

Carter Oil Company has about reached objective depth of 5900 feet with its Navajo No. 1 wildcat on Section 18-42s-25e or four miles southeast of the White Mesa field in San Juan County, Utah. Carter previously drilled a wildcat in the sector without clicking with commercial success.

Atlas Plans To Sell Four Corners Holdings

Atlas Corp. reportedly plans to dispose of all its oil and gas properties in affiliate Atlas-Petro Corp. to American Petrofina, an affiliate of Petrofina of Belgium. The deal also includes assets of El Dorado Refining Co., El Dorado, Kansas, which involves Petro-Atlas holdings in the Four Corners area.

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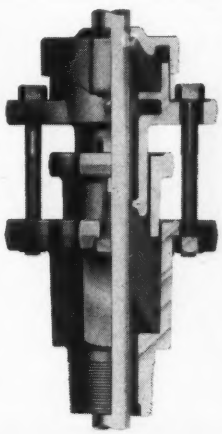

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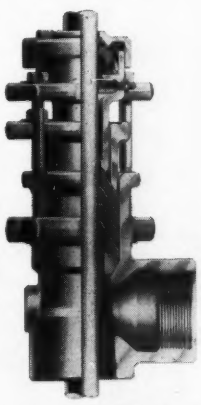
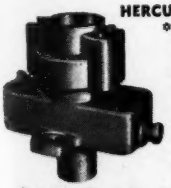
HERCULES "TEE TYPE" Stuffing Box is very compact, only 15" high. It is full opening which allows rods to be run or pulled without removing Stuffing Box body. It is furnished in 2", 2½" and 3" sizes with any API Tubing or Line Pipe Thread.



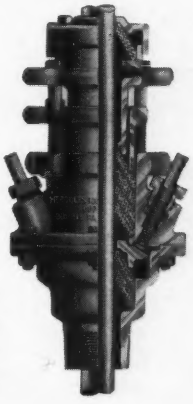


HERCULES OIL RESERVOIR UPPER GLAND

**Any HERCULES Stuffing Boxes may be equipped with Oil Reservoir Upper Glands on "problem" wells which pump-off and burn packing. The polished rod moves through the oil in the reservoir which lubricates and cools it.*

"TYPE DP" DUPLEX POLISHED ROD STUFFING BOX

A double packed Stuffing Box for use on high pressure wells and those that flow intermittently. Especially desirable for wells located near buildings, fire hazards or growing crops. Two compression bolts, in bottom sections, are tightened on lower packing set while replacing packing in upper section. Possess same flexibility as the regular and Tee base type.



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North Tejon Well Tests 1500 Barrels

Reserve Oil and Gas Company's Standard-Tejon No. 361-19 well in the North Tejon area in Kern County flowed at the daily rate of 1500-2000 barrels on formation test of the interval of 12,015-12,174 feet. Location falls on Section 19-11n-19w and about a quarter-mile southwest of the company's Vedder sand discovery well which was completed 11 months ago. It also lies a little farther southwest of the second producer, finaled in the pool. The initial effort was tagged Reserve-Butler-Wehr No. 67-18 and it was completed flowing 275 barrels a day of 34 gravity oil from 222 feet of sand in the over-all zone of 11,850-12,207 feet. Next came Reserve-Butler-Wehr No. 388-18 for a flow of 1310 barrels of 34.2 gravity oil a day from 320 feet of sand at 11,589-11,979 feet. Oil produced on the formation test of Standard-Tejon No. 361-19 was clean and of 32 degrees gravity. This Vedder sand development campaign is going forward under the intertwined banner of both Reserve and California Standard.

San Emidio Wildcat Given Up Down Deep

Richfield Oil Corporation has walked away from its KCL No. H-33-15 wildcat test on Section 15-11n-21w in the San Emidio Nose sector of Kern County at a depth of 14,471 feet.

Ohio Oil Gives Up Hub Area Test

As a sequal to a final check with electric log and sidewall sampler, Ohio Oil Company has abandoned its Frank D. Toste No. 1 wildcat venture on Section 10-18s-20e in the Hub sector of Kings County and not many miles from the Fresno County line.

Hollister Project Drilling Steadily

One-half mile north of the town of Hollister, Comstock Oil Company is drilling steadily ahead below 700 feet with its Comstock No. 1 wildcat on Section 27-12s-5e, San Benito County. The 10¾-inch surface pipe was set at 200 feet in the well, which is two miles east of the Lomerias gas field.

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By working pressures? In the high pressure range, nothing can touch the MacClatchie H.P. Valve for the day-in, day-out grind of modern drilling work . . . *proven by tests!**

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By replacement costs? MacClatchie H.P. Valves comprise just three simple parts—body, replaceable insert and seat. (No plates, springs or lock washers.) Valve cap is used over and over again—only the body and insert need be replaced. You save maintenance, down time and inventory costs with MacClatchie.

By *any* standards, buy *MacClatchie*—Made in all popular slush pump sizes

*Results of tests conducted by major pump manufacturer furnished on request.

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Bisti Trend Well Being Worked Over

Ralph Rossi and A. M. Lacey are running tests of a project situated four miles south of production in the Bisti trend area in San Juan County, New Mexico, which once was abandoned by Magnolia Petroleum Co. The well, Magnolia-Postelle-Federal No. 1 on Section 28-25n-13w, had picked up the Gallup zone when given up. Under the new banner, the well hit top Dakota at 5430 feet and since then considerable more of this sand has been penetrated.

Yuma Wildcat In Line For Deepening

Gila Valley Oil & Gas Company probably will move in shortly to deepen from 2006 feet to 2800 feet its Karmroth No. 1 exploratory well on Section 15-8s-22w in the Yuma area, Yuma County, Arizona.

Texas Standard Adds Bisti Trend Producer

Standard Oil Company of Texas has put on production its Federal No. 1 well on Section 22-24n-7w as a gas finder in the Gallup sand at the far southeasterly end of the Bisti trend sector in Rio Arriba County, New Mexico. Located one and one-half miles northwest of Standard's previous discovery, the new well was finaled at perforated intervals at 5856-5876 feet and 5880-5888 feet. It started off at the daily rate of 143 barrels of 42 gravity oil through a 20/64-inch bean. Pan American Petroleum Corporation's Zanotti No. 1 on Section 34 is drilling at 1500 feet. Southern Union Gas Company's Ernest No. 1 on Section 27 at last reports was digging near 2000 feet.

Bandini Petroleum Company's Beardsley No. 3 at Springville Dome with Gregg Drilling Company handling the chores. Left to right: Troy Carraway, pusher; W. E. Morrison, driller; R. M. March, derrick; J. C. Kelley, cathead and W. G. Klebold, pipe racker.

Porterville Test Under Way

Drilling is under way with Dr. E. Lowell Schaeffer's John W. Sharman No. 1 exploratory well in Section 6-22s-27e at Porterville in Tulare County. Target depth is about 1400 feet.

West Jasmine Test In Motion

Calitex Land & Development Company has started drilling another wildcat well west of the Jasmine field in Northern Kern County. The new project is Quinn No. 64-18 on Section 18-25s-27e and about three miles west of production. Location is three-fourths of a mile north and west of a previous test put down by Calitex, which was labeled Quinn No. 1-19 and abandoned last November at 4158 feet.

Bandini Petroleum Company's Beardsley No. 3 being put down on Springville Dome by Gregg Drilling Company. Left to right: J. B. Rowan, E. J. Davis, derrickman; Charles Fielder, cathead; W. H. Burney, lead tong and T. W. Caffey, pipe racker.

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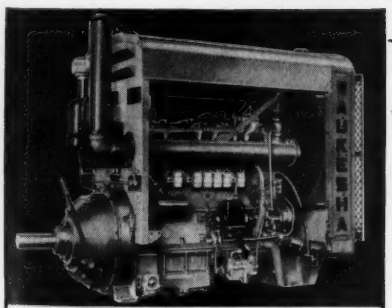

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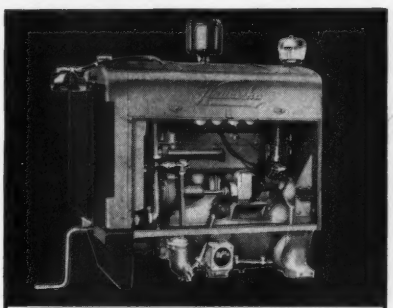
Features and accessories built into these special gas units enable them to operate without maintenance except at greatly extended intervals. Make big savings in pumping; compressor service; and feeder operations.



XAHU Utility Long Life Unit—four cyl., 3⅝-in. bore x 4½-in. stroke, 186 cu. in., 21 continuous (65%) hp at 1500 rpm.

365-R

Sizes range from 133 to 1197 cu. in.—14 hp at 1500 to 124 hp at 1200 rpm continuous duty ratings (65% of max. hp). For details get Bulletin 1702.

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Chemical Process Adopts BJ Service Name

Chemical Process Division is adopting the name and trademark identity of BJ Service, Inc., effective immediately, according to an announcement by John B. Merritt, BJ Service executive vice-president and general manager.

The decision to unify all operations of the two oil well service companies was reached by key executives of both firms to gain "greater service strength and additional operating efficiency," the announcement said. Chemical Process has been operating as a separate division of BJ Service since their merger a little more than a year ago.

Previously, Chemical Process had specialized in oil well acidizing, fracturing and special chemical treatments throughout Texas, Oklahoma, Louisiana, Kansas and New Mexico. General offices of the firm are located in Fort Worth, Texas.

BJ Service, a subsidiary of Borg-Warner Corporation, provides cementing services in Texas, New Mexico and Louisiana as well as cementing, fracturing, acidizing, perforating and radioactivity logging in California and Rocky Mountain fields. The company's main offices and laboratories are located in Long Beach, California.

"Unification of our two firms under a single banner means better service to the oil industry through uniformity of services, elimination of duplication and an expanded research effort," Merritt said. He emphasized that station operations will be broadened in many areas to bring customers the consolidated services available with the unification program. Under this program, BJ Service now comprises 60 field stations, 800 units of specialized mobile equipment and a staff of 900.

General offices for the combined operation will continue to be located in Long Beach. R. G. Miller, vice-president and assistant general manager, will be headquartered in the company's Fort Worth offices.

A new unified plan of organization and operation has also been adopted, the announcement said. The plan divides BJ Service into five operating divisions. They are:

West Texas Division, Midland, Texas. L. H. Kaltenberger is division manager.

Mid-Continent Division, Fort Worth, Texas, with B. L. Crone as division manager.

John B. Merritt, general manager, and R. G. Miller, assistant general manager, BJ Service, Inc.

Gulf Coast Division, temporarily located at Fort Worth, Texas, while preparations are made for permanent office quarters in Houston. Division manager is C. R. Cross.

Pacific Coast Division, Long Beach, California. J. T. Streger is division manager.

Rocky Mountain Division, Denver, Colorado. Division manager is C. Z. Hughes.

Executive sales officers named are G. R. Whitney and F. D. Smith. Operations will be managed by W. T. Box, with J. V. Derrick as assistant manager.

As another important part of the unification, the engineering development and manufacturing division will be consolidated under the managership of M. B. Riordan in Long Beach. The company laboratories at Breckenridge, Texas, supervised by V. C. White, will concentrate on research in chemical services, including cementing, fracturing and acidizing.

The Long Beach laboratories, supervised by R. F. Meiklejohn, will specialize in development work on electrical and mechanical equipment and wire-line services.

Manufacturing operations on the company's high-pressure pumping units and auxiliary equipment will be performed at the Long Beach plant, under the supervision of D. J. Kliment and at the Breckenridge facilities under the supervision of C. F. Hogan.

Aneth Area Test Drilling Steadily

Approximately six miles northeast of the Aneth field in San Juan County, Utah, Hiawatha Oil & Gas Company's Government No. 1 wildcat test on Section 19-39s-25e is drilling ahead below 5800 feet. Location is in a sector where but little drilling of any type has been conducted to date. It lies on the southwest fringe of ground farmed out some months ago by Lion Oil Company to Texota Oil Company, which recently turned its interest to Hiawatha. Cosden Petroleum Company also is understood to hold a stake in the play.

Young man to draft board:

"But you can't turn me down—I've proposed to three girls, told my boss what I think of him, and sold my car!"

Lloyd Corporation's McGrath No. 1 in the Oxnard field with Drilling and Exploration Company doing the work. Left to right: V. C. Porter, pipe racker; Harold Tucker, lead tong; Warren Begley, cathead; J. C. Bryant, derrick; Merle Dunham, driller and E. L. Kiser, pusher.

Every day more electric pumps are going "on tour"
THE TREND TOWARD ELECTRIC pumping in Southern California oil fields is growing.
And the reason is a simple one – electric pumps give maximum production at minimum cost. Add to this the safety, dependability, ease of maintenance and quietness of electric equipment and you'll readily see why it will pay to investigate the modern way to pump.
For information on electric pumps and other equipment suitable for your operation, ask an Edison power consultant. His services are available through your local Edison office without cost or obligation. And no matter what other type of equipment you're now using, his recommendations are certain to save you money.
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Grant Occupies New Los Angeles Offices

Grant Oil Tool Company is now occupying its new Los Angeles offices and production facilities, according to an announcement by Grant Vice-President A. H. Salvatori. The new plant, which covers 20,000 square feet, is another step in Grant Oil Tool's expansion program.

The new modern facilities will allow handling of the increased demand for Grant tools while maintaining the company's standard of quality. The new plant will also play an important part in the research and expansion of the Grant line of tools, and in the production of the newly acquired line of Zublin tools. The new offices and plant are located at 2042 Vernon Avenue, Los Angeles, California.

Black, Sivalls & Bryson Enters License Contract With Shell Development Co.

Black, Sivalls & Bryson, Inc., oilfield equipment and steel products manufacturer, has been licensed to build and sell oilfield lease automation systems under patents held by the Shell Development Company, subsidiary of Shell Oil Company. In addition, arrangements have been completed for the transmittal to Black, Sivalls & Bryson all of Shell's technical information pertaining to oilfield automation systems.

Announcement of the arrangement was made jointly by Kenneth W. Lineberry, President of Black, Sivalls & Bryson, and H. Gershinowitz, President of Shell Development.

Both companies have been active for years in the development and research of oil well lease automation, which provides automatic control and remote operation of oil and gas producing fields.

The information and rights acquired by Black, Sivalls & Bryson include development work accumulated by Shell over many years in this field, Mr. Gershinowitz announced. This includes automatic control of well production, automatic well testing to determine the production of individual wells and automatic custody transfer of the production to the pipeline.

Automatic recording and transmission of data on daily production runs and other information can now be fed into standard computing machines for analysis, he added.

Black, Sivalls & Bryson has invested substantial sums for research and development in this field over several years and has several patents of its own as well as applications pending for others. Early last year the company introduced the first fully automatic lease system commercially available from one manufacturer.

"The acquisition of the technical information from Shell Development will add considerably to Black, Sivalls & Bryson's previous work in this field, particularly in the areas of systems and electronic controls as well as data recording, processing and transmission," Mr. Lineberry said.

The arrangements between the two companies, together with BS&B's working relationships with other companies which have done development work in this field, should produce a pool of technological information that will save the oil and gas industries a considerable amount of money, Mr. Lineberry asserted.

"In switching over to fully automatic field operations, producers can now look forward to appreciable savings brought about through lower field operating costs, greater accuracy in measurement of the saleable product and reduced accounting costs," Mr. Lineberry continued. "The faster transmission of production and reservoir information will be of great assistance to management," he added.

"In a period of rising operating expenses, automation is taking its place as an offset to the shrinking profit margins," Mr. Lineberry said. "Black, Sivalls & Bryson, as a result of the licensing agreement and the technical information received, will be able to blanket the entire oilfield automation field with a packaged system that incorporates the best thinking of all participating," he concluded.

SPECIFIC FUNCTIONS OF OIL WELL LEASE AUTOMATION EQUIPMENT: Automatic wellhead control; automatic well test programming; automatic well flow programming; automatic alarm system; automatic metering equipment; automatic detection of water content of crude oil; automatic data processing and recording; automatic metering and data recording for custody transfer; automatic data control and alarm signal encoding for remote transmission over any commercially available transmission link, including wire, radio or carrier wave on power line; automatic remote data print-out recording; automatic remote transmission of alarm information and control functions; automatic remote data recording on punch tape in form compatible with standard commercial electronic computing and accounting machines.

New Illustrated Brochure Describes SOLVO— New Chloride-Free Paraffin Remover from Tretolite

Under the trade name SOLVO*, the Tretolite Company Divisions of Petrolite Corporation of St. Louis and Los Angeles has introduced new paraffin removers that are **free of organic chlorides.**

They are organic liquids, most of which are dispersible in both oil and water, and can therefore be used in either diluent. SOLVO formulas have high flash points and low vapor pressures, making them safe products to use.

SOLVO paraffin removers can be used as both correctives and preventives. They are equally effective when used to **remove** paraffin deposits from pumping wells, flowing wells, flowlines, pipelines or storage tanks. When applied to clean, paraf-

TRAINED TO SUCCEED

No matter what they start with—lemonade or magazine subscriptions—youngsters quickly learn that it takes more than enthusiasm to succeed in business.

For, as most of us know, a successful business requires more than the desire to go into it. Training . . . ingenuity . . . and oftentimes the courage to keep going are equally necessary. General Petroleum believes it's important to train young people to succeed in our free enterprise system. Throughout the West we are an active sponsor of the Junior Achievement movement.

Under the volunteer counsel of General Petroleum people, teenagers learn the world of business by being in business. They set up their own corporations . . . make their own products . . . sell stock to family and friends, thus duplicating all the processes of a bona fide business. Experience gained from this extracurricular "learning by doing" provides a foundation for success in years to come.

The participation of General Petroleum and its people in Junior Achievement is another of the many efforts we are making to benefit America's younger citizens.

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fin-free systems they **prevent** the deposition of paraffin.

The chloride-free SOLVO formulation is particularly important to the refiner who must process crude petroleum that has been subjected to paraffin-removal treatment. Organic chlorides, such as carbon tetrachloride, found in most removers, remains in the crude oil—following it to the refinery where it adversely affects the performance of the platinum catalysts used in catalytic reforming.

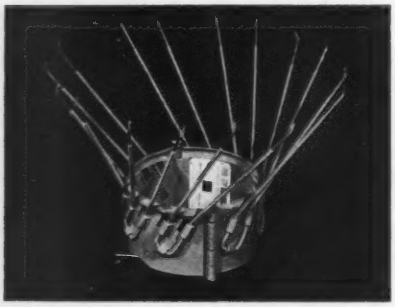
Refinery tests have recently shown, for example, that as little as 5 gallons of a chloride-containing solvent can contaminate as much as 30,000 barrels of crude, and ultimately affect overall refinery operation.

An illustrated brochure is now available to describe more fully what SOLVO is, how much to use and method of application in wells, pipelines, flowlines, tanks, etc. A copy may be had by addressing your request to the Tretolite Company, 369 Marshall Avenue, St. Louis 19, Missouri, or 5515 Telegraph Road, Los Angeles 22, California.

*Trademark Reg. U.S. Pat. Off.

BJ's New Scratchers Feature Coil Spring Fingers

A new line of scratchers is announced by Garth Nicolson, vice-president and general manager of Byron Jackson Tools, Inc., a subsidiary of Borg-Warner Corporation. The BJ Red Top Scratcher features special coil spring steel fingers enclosing wire scratching elements that never kink but always bounce back into position.



Each of the new kind of scratching fingers consists of a sheaf of 10 steel wires held fast in a tightly coiled spring. The protruding wires do the actual scratching and the coils spring them back to their original position after each stroke, and never let them lose their effectiveness. Of equal importance is the fact that the coiled springs prevent damage to the scratching fingers before and during insertion into the hole. A slight dogleg near the tips of the wires keeps them from disturbing the mud cake on the way down.

BJ cratchers are manufactured in sizes to fit all API casing OD's from 4½" to 13⅜". Every model features strong hingSed clamp-around design.

Garth Nicholson points out, "With the recently introduced BJ Red Top Centralizer and now with the Red Top Scratcher we feel that we can offer the petroleum industry positive results in any cementing operation. These new products are results of combined efforts by Byron Jackson Tools, Inc., and the Borg-Warner Spring Division, with valuable assistance by BJ Service, Inc."

BJ Scratchers and centralizers are sold through all oil field supply stores as well as by sales and service field stations of Byron Jackson Tools, Inc., and BJ Service, Inc.

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Girl—"I'm a late model."

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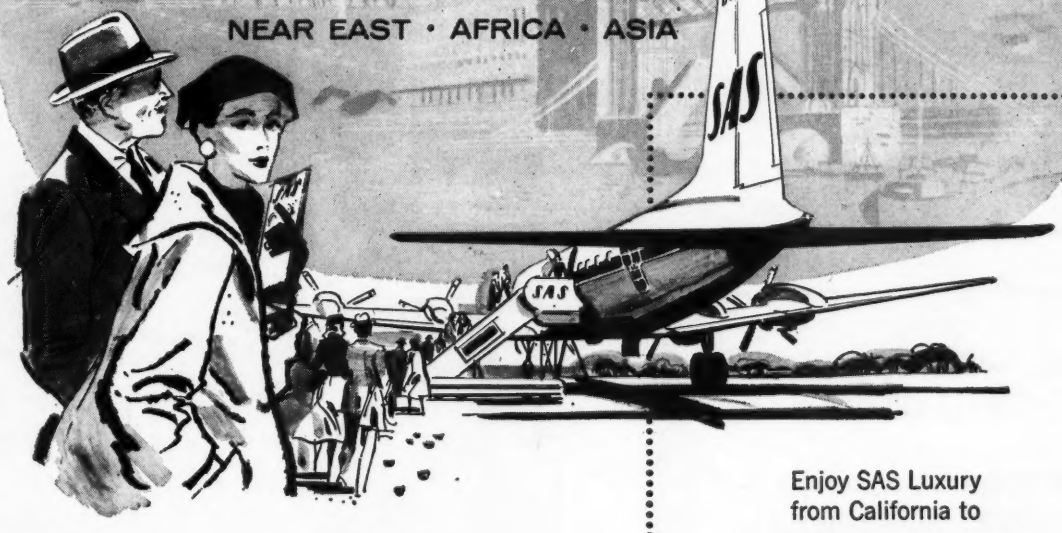

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LAUGH OFF!!

"Why didn't you take your medicine?"

"I couldn't, doctor. It says here on the bottle 'Keep tightly corked.'"

"Dad, what is a traitor in politics?"

"A traitor, my son, is a man who leaves our party and goes over to the other side."

"Well, then, what is a man who leaves his party and comes over to your side?"

"A convert, my boy."

A man and his wife were riding along together in a car. They had been quarreling but hadn't spoken a word for a long time. Finally they passed a jackass in a pasture. The man pointed and asked his wife: "A relative of yours?" "Yes," came the reply, "by marriage!"

The teacher sent a note home with Johnny asking his mother to see that he had a bath before returning to school. The next day Johnny handed the teacher this note in return: "Dear Miss Smith, Johnny comes to school to git learnt, not smelt. He ain't no rose."

Clerk, to young thing who just tried on a tight sweater:

"Would you like to step outside and try it for whistles before you decide?"

The young thing was sitting on her front porch knitting some tiny garments. And her mother said to a neighbor: "I'm glad to see that she has taken an interest in something other than running around with boys."

Wife (reading husband's fortune card)—" 'You are a leader of men. You are brave, strong-willed and popular with the opposite sex.' It has your weight wrong, too."

A fellow was bragging about his new girl friend. "She's a vision of beauty," he said, "a regular mirage."

Friend—"I get what you mean but you're using the wrong word. A 'mirage' is something you see but can't feel."

Fellow—"That's her."

Mother (phoning doctor) — "My little boy has just swallowed a .38 bullet. What shall I do?"

Doctor — "There's only one thing to do, give him a bottle of castor oil."

Mother — "The whole bottle?"

Doctor — "Yes, the whole bottle, but be careful, don't point him at anybody."

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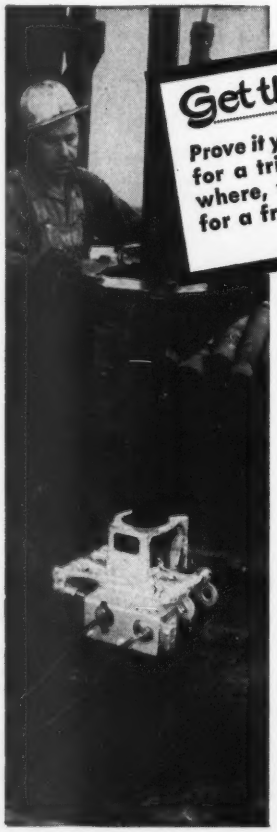

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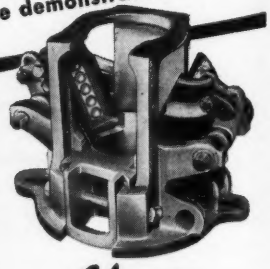

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TUBING SPIDER

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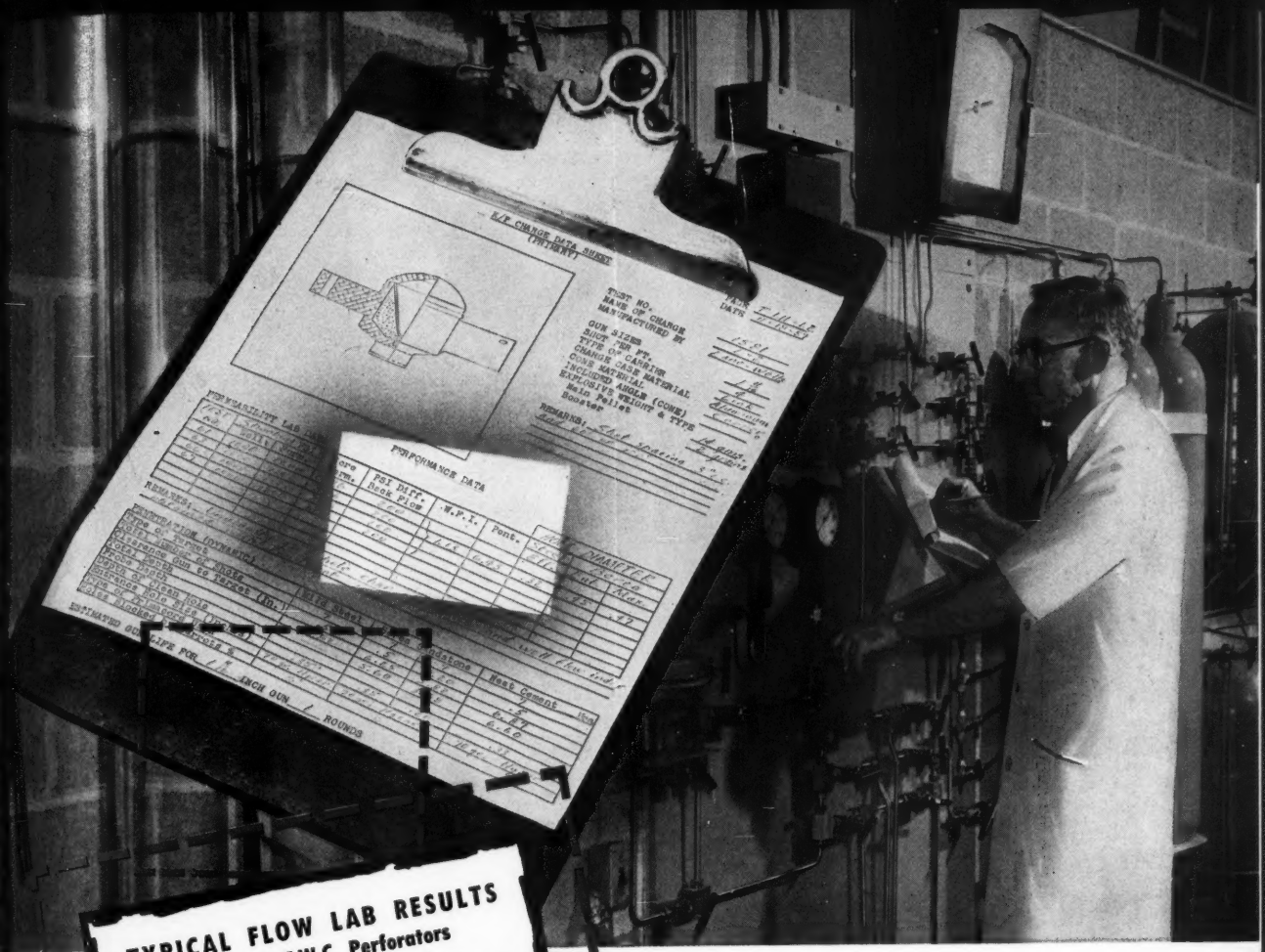
Mid-Continent Rep: Hillman-Kelley
Export Rep: Roland E. Smith



TYPICAL FLOW LAB RESULTS
Selected P.T.W.C. Perforators

Perforators	Average W.F.I.*
1 11/16 Bearcat	1.13
2 3/16 Bearcat	1.06
1 11/16 Swing Jet	.96
1 11/16 Competitor A	.92

*Well Flow Index is the ratio of the flow through the perforated core to the flow through the same core prior to perforating.

Documented PERFORATING PERFORMANCE

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